Developing an ICT teaching workforce for the FE sector:
Rhetoric or Reality?

Dedication

I dedicate this study to my parents Late Mr. Muhammad Abdul Mutaleb and Late Mrs Lutfunnessa Begum. I also dedicate this study to my two brothers, Mohammed Badrudduza (Ripon) and Mohammed Shamsul Huda (Dulan), and all their children and hope that it lights the way for them in seeking knowledge and in achieving excellence. Finally, to my children in the hope that they remember '*life has limitations but knowledge is infinite*'.

Mohammed Shamsudoha

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Acknowledgements

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All praise belongs to Allah alone. I seek His forgiveness. I testify that there is no God but Allah, and that Muhammad (peace be upon him) is his servant and messenger.

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List of abbreviations

ALI	Adult Learning Inspectorate
ALTS	Associate Teacher Learning and Skills
AOC	Association of Colleges
BECTA	British Educational Communications and Technology Agency
BETT	British Education and Training Technology
CPD	Continuous Professional development
CTLLS	Certificate in Teaching in the Lifelong Learning Sector
DfEE	Depart of Education and Employment
DfES	Department for Education and Skills
DfE	Department for Education
DoE	Department of Education
DTLLS	Diploma in Teaching in the Lifelong Learning Sector
FE	Further Education
FEDA	Further Education Development Agency
FEFC	Further Education Funding Council
FENTO	Further Education National Training Organisation
FERL	Further Education Resources for Learning
GNVQ	General National Vocational Qualification
ICT	Information Communications Technology
IfL	Institute for Learning
ILT	Information learning Technology
IT	Information Technology
ITE	Initial Teacher Education
ITT	Initial Teacher Training
JANET	Joint Academic NETwork
JISC	Joint Information Systems Committee
LEA	Local Education Authority
LSN	Learning Skills Network
LIS	Learner Involvement Strategy
LLUK	Lifelong Learning UK
LSC	Learning Skills Council
LSDA	Learning and Skills Development Agency
LSN	Learning Skills Network
NATFHE	National Association of Teachers in Further and Higher Education
NLN	Network Learning Network
NVQ	National Vocational education
OFSTED	Office for Standards in Education
PGCE	Post Graduate Certificate in Education
PTLLS	Preparing to Teach in the Lifelong Learning Sector
QIA	Quality Improvement Agency for Lifelong Learning
QTLS	Qualified Teacher Learning and Skills
SDO	Staff Development Officers
TDLB	Training Development Lead Body
TSS	Technical Support Staff

Technology in education and industry

CHAPTER 1

> *"The nature of employment will continue to change. Most occupations already require greater levels of skills than in the past. Skills that were once seen as specialist and technical, such as in ICT, have increasingly become core requirements for most jobs."*
>
> *Skills in the UK: The long-term challenge. Interim Report Leitch, (2005:5)*

1.0 Introduction

This study focuses on three Schools of Business Studies and the teachers who work in them in three different Further Education (FE) colleges as they follow government directives to integrate Information Communications Technology (ICT)[1] into their everyday teaching and learning. My interest for this study began from informal conversations with non-ICT teachers[2] in my own professional practice, a large inner London FE college. I often saw the frustration on their faces when they tried to use some basic software programs and computer peripheral devices such as printers. These teachers would become angry and blame the equipment and their lack of knowledge in using them. I would hear such comments as "*I can't do this*", "*How do I do this*", "*This is stupid*", *It doesn't work*", "*Something's wrong with this machine*", "W*hy can't this be easier*?", "*I hate this*", "*Oh God, this is useless*" and "*The network's down again!*" Some teachers would emerge from classrooms frustrated that the session they had prepared could not be delivered because of smartboard or computer related problems that they were unable to resolve or comprehend. These teachers also complained that technical support staff members were not on hand when needed. In some cases, students demonstrated a willingness to use their ICT knowledge to solve the problems so by the time technical support arrived, they were no longer required causing them to consider the original problem as trivial. These teachers

[1] ICT refers to a range of technology, which includes computer workstations, computer networks, software and hardware and a wide range of associated communications facilities that connect and support some of today's most exciting systems such as the Internet.
[2] Non-ICT teachers are referred as those whose teaching subject is not ICT related.

also complained that some members of technical support appeared annoyed at being called out about what they considered as basic ICT knowledge. Their desire to seek help from technical support appeared to be a mix of desperation and reluctance. I observed that teachers frequently sought help from those teachers they considered more experienced in using ICT. However, sometimes their perceived confidence in the experiences of others was not always matched by real expertise in understanding ICT, but rather the result of skills acquired through trial and error. It was particularly interesting to see how teachers valued learning from their peers. It seemed these teachers preferred to talk to other teachers who understand them, shared the same or similar students or teaching contexts and so better understood their concerns and dilemmas relating to ICT. However, not all teachers appeared to view ICT positively. A few claimed they used ICT as little as possible to avoid problems or they considered that it had little real value in the classroom apart from assignment related Internet searches or word processing of assignments.

As an ICT teacher I realized that had they really known how to use ICT and the benefits associated with it, they would be using it regularly. I noted the numerous problems and barriers these teachers faced when I saw them using ICT in their teaching, in preparation of teaching materials for their subject areas and also in completing administrative tasks. I was frequently called upon to provide practical advice and support on basic technical know-how to business studies lecturers who have little or no knowledge of ICT. These teachers often complained about my College's lack of real support, access to computer equipment, lack of appropriate training for their ICT needs, lack of technical support, lack of commitment from the College management, breakdown of the network systems and the inadequacies of the staff development sessions designed to support the use of ICT into the curriculum.

Based on the situation described above, it was clear that the majority of teachers were receptive to using ICT, but there was an urgency to understand the problems highlighted, identify the reasons why these teachers struggled and behaved as they did when using ICT in their everyday teaching and learning and explore their perceptions on the subject. Researching these issues is important not only in teaching and learning but because ICT has become an integral part of our society and it is seen by employers and politicians as a key tool for economic success. As a result, there is a growing expectation that education must respond and that teachers must use ICT interactively to transform their teaching environments to prepare the workers of tomorrow.

1.1 Rationale

Most governments have recognized that the world has become a competitive marketplace; all nations are determined to bring about economic advantage. Globalization has accelerated scientific and technological change at an unstoppable pace due to the advancement of ICT; it has increased the demand for skilled ICT literate staff in the workplace (Green, 1997) and increased global economic competition (Brown et al., 2001). There is little doubt that the global economy is changing and a key characteristic is the emergence of what has become known as the 'knowledge society' or 'information society', which signifies a shift from production of material goods to information processing activities in advanced capitalist societies (Castells, 1996). While the relevance and accuracy of the term 'knowledge society' can be contested it has strongly influenced policy making in the UK (Guile and Hayton, 1999). Today, the global economy is powered by technology and driven by knowledge. "The ability to generate new jobs in the UK in all sectors depends on the quality of the digital skills pool" (e-skills UK, 2009, p.59). The way people perform at work and communicate has changed considerably and technology has also unleashed vast potential for businesses and education. We need to recognize that most business and organisations now see ICT as vital to their everyday activities and that

without ICT businesses will find it difficult to function effectively. The current nature of jobs in the UK and around the world is also changing; therefore our education related to different professions also needs to change. The impact of the knowledge and digital society on the future of jobs cannot be underestimated.

At the beginning of this chapter the statement by Leitch, (2005) makes it abundantly clear that every job in the UK will demand ICT as a core requirement for most professions. This point is reinforced by the European Commission, "To reap the rich benefits of today's knowledge-based economy, it is increasingly important for workers to be able cope with technology-related shifts in the labour demand and to adapt to changes in the skills content of jobs" (European Commission website, 2010). This suggests that the way in which each country meets the challenge of information technology will shape its economic and social future into the next century. Moreover, countries that do not make the investment in ICT risk being marginalized in an era of globalization. Throughout the UK, almost every part of industry has been adapting to technological changes due to economic pressures and global competitiveness.

However, the notion of an ICT literate workforce is not a new idea. It was a policy concern for successive governments. For example, a Conservative White Paper commissioned by John Major, *Competitiveness: Helping Businesses to Win* (DoE, 1993), noted that the most successful countries would be those, which produced a highly motivated skilled workforce driven by technology. However, despite recognising the importance of ICT in education 'the conservative government's approach to education was largely piecemeal and non-committal' (Selwyn, 2010, p.64). When New Labour came to power in 1997 it was determined to ensure economic competitiveness and promote the use of ICT. In the years that followed, it commissioned a number of reports. These pointed to the importance of developing skilled workers. For example, The White Paper, *21st Century Skills: Realizing*

our Potential: Individuals, Employers and Nation (DfES, 2003) stresses the importance of skills, particularly ICT for the individual, businesses and the nation. The *Foster Report* (2005) states

> "*....our future depends on our skills. The world is a competitive market and the marketplace is crowded with nations seeking to succeed.*" (p.2)

A similar urgency is stressed in the *Leitch Report* (2006) where it states

> "*Our nation's skills are not world class and we run the risk that this will undermine the UK's long-term prosperity.*" (p.1)

In the White Paper, *Further Education: Raising Skills, Improving Life Chances* (DfES, 2006) we are further reminded:

> "*Our economic future depends on our productivity as a nation. That requires a labour force with skills to match the best in the world. This is a huge challenge, because there are some deep-seated and long-standing weaknesses in our national skills.*" (p.1)

New Labour recognised the contribution FE makes to the economy as a key provider of skills. In the foreword to *Learning and Skills – the agenda for change (LSC, 2005)*, the then Minister of State for Higher Education and Lifelong Learning, Bill Rammell stressed:

> "*Further Education is the engine room for skills and social justice in this country. It equips businesses with the skills they need to compete and opens up opportunities for people of all ages and from all groups in the community to build the platform of skills and qualifications to get and keep jobs, to develop in their jobs to skilled, well-paid employment and to progress to higher education. Thus far an unsung hero, FE is well placed to keep Britain working.*"

The above publications highlight the importance of acquiring the relevant skills in order to remain competitive in the world market and also acknowledge the role of FE today. New Labour placed great emphasis on skills, including ICT, for economic growth by putting education at the top of the political agenda (McCarney, 2004). Some writers questioned the political view. For example, Wolf (2002) argued that there is little evidence to suggest that there is any direct relationship between education and economic growth. Despite her scepticism, we need to acknowledge that the education system is different for each

generation in terms of the knowledge, skills and attitudes (Freebody, 2004) required for industry. Most would agree with the notion that in a fast-changing technological world building a highly skilled flexible workforce is no longer an option but is essential for economic prosperity (DfEE, 2000, Crouch et al., 2001) and the key to competitive advantage (Foster Report, 2005).

Concerns about skills, including ICT have dominated national policymaking, especially in education (Rowland, 2003). There was growing pressure on educationalists to provide an answer to the shortage of technological skills required by industry. The need to introduce technology in FE as a resource for learning was seen by New Labour as vital to build the UK economy to compete in the emerging 'digital economy' where all members of society would have the opportunity to gain information processing skills (DfEE, 1997). Over the last few decades, the UK government has seen technology as a tool to be used by all students to prepare them for the world of work (FEDA/AoC, 1996, DfES, 2006, DIUS, 2008a). A growing number of publications and policies in Britain have stressed the importance and benefits of ICT in education. It has also been identified as a key motivator to support those students who may be disillusioned with traditional teaching methods (*Kennedy,* 1997). For example, *14 – 19 Widening Participation* (DfEE, 2005), stressed the power of technology to engage learners, increase motivation, improve retention and increase outcomes. The same views were also expressed in a number of British Educational Communications and Technology Agency (Becta) reports (2008a, 2008b and 2009).

Many believe that technology is a very useful tool in FE education especially in teaching and learning (Gregoire et al., 1996; Vaughan 1997; Selinger, 2002; Cole, 2004; Becta, 2005; Albirini, 2006; Bingimlas, 2009; Tezci, 2009). Others believe that it would revolutionize education if used widely (Perlman, 1992). However, there are fewer writers who actually suggest how it can be used effectively in the classroom. Little is written about

the need for FE teachers to acquire new skills in order to use this technology effectively. More importantly, just how FE teachers will use ICT in their teaching environment and the critical role that teachers play in the classroom lacks full debate. Green and Lucas (1999) offer a view that both teachers and students will need to develop 'intellective skills'. This term was first used by Zubboff (1988) to distinguish between the traditional workplace skills and the new workplace skills resulting from the introduction of information technology. Green and Lucas further noted that if ICT usage is to be maximised, colleges would need to see themselves as 'learning organisations' rather than simply teaching organisations. According to Green and Lucas, learning organisations are characterised by their ability to respond to challenges by learning and growing to embrace changes. It is a whole organisational approach that involves sharing knowledge, expertise thinking and reflection. As Peter Senge (2006) notes learning organisations are places where:

> *"expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (p.3).*

These organisation cannot create themselves, Laurillard, (2002) suggests that it requires education leaders to create the 'learning organizations' that are capable of adaptive learning (Laurillard, 2002).

The next section discusses New Labour's attempts to bring the FE sector and technology together.

1.2 New Labour's Policies relating to ICT and FE's role

In the 1997 general election, New Labour's manifesto (TES, 2001) included their pledge to connect the Internet with education. They wanted to be seen as pioneers of technology in education (Selwyn, 2008). New Labour felt that the future of British education should be driven by technology. They saw the education sector as the main medium for developing ICT skills and with FE as a key player. For example, *Use of Technology to Support*

Learning in Colleges (FEFC, 1997) identified the need for a more strategic approach towards the use of ICT in the FE sector. In fact, 'the ten years following Blair's election to Prime Minister saw the positioning of ICT as a major presence in the UK education system' (Selwyn, 2008, p.64). A number of reports highlight the value of ICT in all learning environments. These include *Learning for the 21st Century* (DfEE, 1997) where the policy document exhorts us to develop a culture of lifelong learning and to take advantage of ICT and promises full access to new technologies for everyone. It also stresses that ICT will help to improve teachers confidence and competence in FE. However, there is also a warning that those who do not understand how to use these new technologies will be excluded from active participation in civil and democratic society. New Labour's Green Paper; *The Learning Age: A Renaissance for a New Britain* (DfEE, 1998) referred to the need for a well-educated, well-equipped and adaptable ICT workforce to sustain economic growth. The following quote also shows New Labour's commitment towards technology and education indicating its policy thinking and direction.

> *"We are in a new age – the age of information and global competition.....new opportunities are opening up and we have no choice but to prepare for this new age in which the key to success will be continuing education and development" (DfEE, 1998:9).*

Over the following decade, New Labour remained consistent in its determination to keep the focus firmly on ensuring the use of ICT in FE. This can be seen in the document *Colleges for Excellence and Innovation* (DfEE, 2000) where ICT is identified as a key aid in delivering education and engaging learners.

In 2003, at the JISC[3] Conference, Charles Clarke, Secretary of State for Education and Skills at that time, underlined the central role for ICT within the education sector. He stated:

[3] The Joint Information Systems Committee (JISC) supports FE and HE by providing strategic guidance, advice and opportunities to use ICT to support teaching, learning, research and administration.

> *"I am passionate about the use of new technology in the classroom.... It can make a real difference to teaching and can engage and excite students of all ages."*

Sir Andrew Foster in his report, *Realising the Future: A review of the Future Role of Further Education Colleges* (DfES, 2005), notes that the future economic prosperity of the UK depended on maximising the potential of its people through knowledge, skills and technology. The report by Lord Leitch '*Skills in the UK: The Long Term Challenge*'- *Interim Report.* (Leitch, 2005) argues that the nature of employment in the UK will continue to change and that most occupations will require greater levels of skills than those required in the past. His report stresses throughout that skills, which were once seen as specialist and technical, such as ICT, are now core requirements for most jobs as technology and the global economy have continued to change. This clearly highlights the role education has to play in developing students' ICT competence as potential workers. In another report, *Harnessing Technology* (2006), Ruth Kelly states:

> *"Imaginative use of ICT should help engage more learners in the excitement of learning. Borrowing ideas from the world of interactive games, we can motivate even reluctant learners to practice complex skills and achieve much more than they would through traditional means. New technologies can attract new kinds of learners."* (p.3)

Having seen the potential of technology in education in other countries such as the USA and Europe, New Labour realised that integrating technology in education could not be done just on a whim. FE was now receiving the attention, which it had been seeking for so long. New Labour saw FE as central to its vision in creating a learning society, tackling social exclusion and promoting the skills agenda through high quality education and training (Hodgson and Spours, 1999). New Labour feared that those without appropriate knowledge and skills would have no place in the workforce of the future (Brown et al., 2001). This sentiment is re-enforced by Lord Leitch (2006), when he reported that employers continue to express concerns about the lack of skills resulting from

technological advances and that to ensure economic success the education system must start with the young generation of learners. Many of New Labour's polices relating to ICT in education show that they wanted to transform educational institutions and make the UK education system ready for the twenty-first century (Selwyn, 2008).

1.3 Expectations of technology rich students entering FE

Most young students entering FE will have been 'weaned on technology' from an early age, therefore they can be described as "technology rich". They have grown up with computer games; play stations, MP3 players, mobile phones and wireless games consoles and many other interactive gadgets. Today, most young people are frequent Internet users and they are driving the growth of the World Wide Web. This is because of cheaper high-speed Internet access which has become available through broadband, allowing and encouraging young people to have quicker access to information, music and video files. Today, internet access is no longer restricted to the confines of educational institutions; it is widely available in most homes, internet cafes and more importantly on mobile phones, thus offering access to the internet 'any time, anywhere'. Instant Messaging has become a key feature of digital communications for young people for exchanging files and chatting on line (Leyland, 2006). This suggests that young people are taking advantage of the technology available to them. Leyland further notes that many young people can quickly access, create, swap and manipulate information on many levels. This is because the current generation has grown up using the Internet as its primary means of communication. Oblinger (2008) refers to these young people as the 'net generation', born in the 1980s who are technologically savvy and have never known life without the Internet. Oblinger notes that a defining feature of the 'net generation' is that they make little distinction between their real and digital lives. Oblinger further stresses that these students no longer want to be 'told', but to 'discover' for themselves and what they do not know they find out for themselves or learn from their peers. For many young people digital communications

underpin their social lives. Today, there are many social networking websites[4] such as MSN, Youtube, facebook, Skype, Twitter, Bebo, Myspace and many more which have become very popular with young people to send and receive instant messages, upload, view and share textual, video and audio files across the Internet. These sites are also their main source of communication (Oblinger, 2008).

The way the new generation of students interact and learn is no doubt different to previous generations. According to Oblinger (2008) educators see their students everyday but do not necessarily understand their habits, expectations or learning preferences. She also suggests that today's learners require immediate responses rather than having to wait for information and that they want access to information to be available 24/7. From the views of Oblinger, it is clear that today's teachers have to understand that the learning styles of today's learners are influenced by the immediacy and the vast amount of information available to them. Therefore, it requires some urgency on the part of teachers and educational institutions to understand this new generation of students who depend on technology.

Social networking websites have no doubt given the opportunity for young people to experience and practice using numerous technological tools. Their attitude and enthusiasm towards technology should be exploited in the classroom to enhance learning. The technological skills that these young people have acquired will have profound implications for educators who must integrate and provide technological solutions to the teaching and learning of these new 'net generation' young people. 'Net generation' students will require 'net generation teachers'. If this is not recognised there is a real danger that there may be "a lack of alignment between the digital reality of young people's lives and the institutions they come into contact with" (Green and Hannon, 2007, p.20).

[4] Social networking websites: most are privately owned and operated. Internet users can join networks organized by city, workplace, school, and region to connect and interact with other people. People can also find, add friends and send them messages, and update their personal profile to notify friends about themselves.

In 2001, the Department for Education and Skills (DfES) undertook a survey of the attitudes and experience of young people aged 5-18 years and their parents with regard to the use of ICT at home and at school. A total of 1,748 participants were interviewed. The survey report found that the attitudes of children and parents towards the use of computers were positive. The report also found 99 per cent of the young people used computers either at home, in school or elsewhere. In another study on the motivational effects of ICT on pupils, Passey et al. (2004) suggest that wherever ICT was clearly embedded in classroom activity, there was a positive impact on pupil attainment at GCSE level. A further study carried out over a five-year period by Facer (2002) of Futurelab enquired into how young people's use of technology outside schools impacted on their attitudes and expectations of learning inside schools. It found positive effects in motivating students academically with the use of technologies as they already spend a great deal of time using them socially. Leyland (2006) suggests that digital communications have eliminated information barriers and young people either know everything, or know where and how to find out everything. Leyland argues that this view needs to be channelled rather than challenged. It also suggests the potential of student use of technology as a means to enhance their understanding of relevant subjects. The above research findings indicate that we now have a "new breed" of students highlighting how critical it is to integrate ICT into the FE sector for those students who will progress to FE and beyond. Moreover, Strydom, (2001) notes that integrating ICT is important because today's learners, particularly younger ones, are often caught between an environment that keeps pace with technological developments and a system of education that is still trapped in the past.

The pace of technology is highlighted by Papert (1998), who considers that a large number of today's students will grow up to do work, which has yet to be designed. Taking into account the recent technological advancements, Green and Hannon (2007) observe, "the

knowledge economy is shaped, reinvented and driven by people who are part of it – it will look very different in ten years' time" (p.22). Therefore, for the sake of future generations the UK government and educationalists need to empower students with technological skills and knowledge to achieve both in education and in industry. In the next section we can how New Labour has attempted to address these dilemmas.

1.4 New Labour's commitment to ICT in education

From 1997, New Labour concentrated on introducing ICT into education one sector at a time starting with primary schools, then secondary, followed by FE and then finally HE. To realise its vision, New Labour made significant investment in the education sector's IT infrastructure (Pittard, 2004) and also in the creation of the National Learning Network (NLN)[5] linking all FE colleges through the JANET[6] network. The main purpose of the network was to provide a resource base to act as a research tool and a means of information sharing. New Labour's initial investment in ICT for schools resulted in its strong integrated in teaching and learning as a result of continuous government funding (Twining, 2002). This presents a problem, however, because those progressing from schools to FE will naturally expect their FE teachers to be competent with ICT and also expect the ICT equipment to be similar if not more advanced. These students will expect to use ICT in their studies because they will want more of what they have already experienced in school and in their social and recreational lives. Unless similar investments are made in both technology and the technology users in FE it may prove more difficult to engage, motivate and retain learners. If learners are to get the best from modern technology, it is essential for their teachers and trainers to have the most up-to-date skills and knowledge (Becta, 2010a, p7).

[5] NLN is a UK network made up of a number of policy agencies responsible for providing infrastructure, training and materials to enable and encourage national development in ICT. [No longer in operation].

[6] JANET is a private British government-funded computer network dedicated to education and research. All further and higher education organizations in the UK are connected to JANET.

As noted earlier, today we have a new generation of interactive learners who are less dependent on their teachers as they have far more access to Internet based resources. They are able to independently explore, share information and take greater control of their own learning through the use of technology. These learners will be more technologically aware and therefore will expect their teachers to use technology to keep them engaged in the classroom envrionment. This may have implications for the existing FE teaching workforce which can be broadly divided into two categories: those established teachers who have had to acquire ICT skills to remain in their profession and the new younger teachers entering FE who will have acquired ICT from their compulsory education and their social lives. This division has been referred to as 'digital immigrant' and 'digital native' (Bayne and Ross, 2007). To fully implement ICT in their teaching and learning, both groups will need to make personal and professional commitments to developing and updating these skills on a regular basis. However, in my opinion, the question that comes to mind in the current education climate is, how prepared are FE teachers to face this technological challenge given their historic unstable professional status? New Labour wanted to rebuild FE, improve teaching and learning and professionalise the FE teaching force. This is discussed in the next chapter and the implications for ICT.

1.5 Why is ICT important in the Schools of Business Studies' classrooms?

Students leaving compulsory education and coming to FE will expect their FE teachers to be able to effectively use technology in their delivery to engage and motivate them. Therefore, it is important that teachers in FE are confident and competent in integrating ICT into teaching and learning. Plassey et al., (2004) suggests that technology can have a 'motivational effect' on young people, therefore, it is important to use to integrate and use ICT into the Business Studies Curriculum. Engaging students may mean better retention and achievement rates which will have implications for funding and improving the provision. It also important to note that as part of their remit, the Office for Standards in

Education (Ofsted) inspectors will consider the use of ICT individual colleges which will have implications for their status. According to Guile and Hayton, (1999) ICT has been driving national educational policies, therefore, it is important for business organizations to expect their new employees leaving FE to have knowledge of business but also ICT in a competitive employment market. Laurillard, (2008) warns us that although digital technologies present education with a range of opportunities that is hard to comprehend, and even harder to address.

1.6 My professional context

My own professional context is a large FE college where I work initially as a ICT Lecturer and Programme Manager in the School of Business Studies and Computing. Given my experience of the problems and barriers associated with the use of ICT in teaching and learning at my College, this research represents an attempt to grapple with a real-world problem for FE educators to improve their practice. It is also important to note that this was the first research of this kind in the three case-study colleges. The study explored possibilities to improve the colleges' current standing and provide some useful answers. The study also looked at the complexities of ICT in teaching and learning and suggests possible solutions that will implement real change in the way that ICT is used in the learning and teaching arena.

1.7 Academic and professional concerns

The academic concerns that this study raises are relevant to all FE colleges for a number of reasons. Firstly, colleges will need to ensure that all their teachers are adequately trained in using ICT in their teaching and learning as required by Lifelong Learning UK (LLUK)[7]. The acquisition of ICT knowledge and skills will contribute to teachers' personal and professional development and elevate their current status. Secondly, there is a government

[7] LLUK is the independent employer-led sector skills council responsible for the professional development of FE, HE, libraries, archives and information services, and work based learning across the UK.

drive to ensure that all FE teachers can demonstrate the use and integration of ICT into their specialist subject areas. Thirdly, future inspections will consider the delivery and quality of the education and training provision offered by FE colleges in meeting the needs of learners as set out in the Common Inspection Framework (Ofsted, 2008). Inspectors and FE funders are likely to make judgements about the professional ability of FE teachers to maintain the interest of their 'technology rich' students when using ICT in their delivery. This research represents a real-world problem for FE educators to improve their practice. It is also important to note that this was the first research of this kind in the three case-study colleges.

1.8 The focus and framework of the study

The focus of this study was to explore non-ICT teachers' perceptions and attitudes towards ICT, identify how they acquire ICT knowledge and skill with the intention of developing a critical understanding the personal and institutional factors affecting the integration of ICT in teaching and learning. In order to gain an in-depth understanding of these factors, it was necessary to view the process from their perspective and give them a 'voice'. In developing a framework to understand the problems, this study examined the gap between government policies intended to promote the integration of ICT in education and the reality of what is happening in FE. This also involved exploring the contribution Government policy agencies had made to helping teachers to acquire ICT, In addition, the research included Government policy intention to professional the FE teaching workforce through training. National policy initiatives and strategies provided a useful starting point before considering how policies were translated into practices at the three FE Colleges. In order to provide a context for understanding these policy intentions, it was necessary to discuss the historic development of FE teacher training, the consequences of incorporation and its legacy.

The framework was then broadened to consider the role of continuing professional development (CPD) as a means of improving and transforming existing practice. Colleges frequently use a systems type approach where needs are identified and then the necessary input is delivered through training which then theoretically leads to output in the form of new knowledge, skills, attitudes and practices. The relevant literature on the subject showed that while teacher can learn ICT in this way, the actual process of acquiring ICT is much more complex highlighting the interplay between the professional and the personal aspects of teachers' continuing professional development, emphasising the intellectual and emotional engagement with new aspects of classroom practice. This cognitive process shows that individuals' predisposition to learning is influenced by personal attitudes, beliefs and feelings. This then led to considering socio-cultural theories of workplace learning such as situated learning (Lave and Wenger, 1991).

The concept of situated learning helped develop an understanding of how those new to an area of work or a particular skill learn from other more experienced individuals so that over time this leads to mastering the skill and individuals then move from the position of novice to expert. This view of learning is based on the belief that learning and knowing cannot be isolated from the reality of everyday practice. The work of Lave and Wenger has made an important contribution to understanding how people learn because it stresses that knowledge cannot be decontextualised, but must be developed in the context of hands-on-practice. The concept of situated learning has relevance in modern organisational and educational setting where the lecture remains the main form of presenting knowledge. Situated learning is critical of the traditional view of classroom based education and training because this method of learning represents objective knowledge which is separated from the actual setting in which

the information or skills learnt are applied. Their work has important implications for the integration of ICT because it suggests ICT training must be linked to ICT classroom usage and practice. It also acknowledges that the needs of individuals form the starting point for learning.

The work of Fuller and Unwin (2003, 2004) and Fuller et al. (2007) on workplace learning proved invaluable. They developed a framework to understand workplace learning which they referred to as the 'expansive – restrictive continuum'. This was the result of research based on a range of private sector companies. The research places organisations at different positions on the continuum depending on their context and structure. The continuum also serves to identify how the different features of the working environment such as workplace culture and practices impact on people's ability to grow and learn in their own work environments. The continuum provides a powerful way to understand how the culture of an organisation can facilitate or restrict learning. It has since been used to consider educational environments such as FE (Lucas and Unwin, 2009).

Framework of the study

The framework employed qualitative case study research to compare the situation in the three Colleges under study to explore how teachers acquire ICT and involved the use of semi-structured interviews, questionnaires and documentary evidence with the aim of increasing validity and reliability. I believe that this research is important at a local level of my College. It will also be useful at a national level where it can help FE colleges to identify ICT-related problems and challenges faced by non-ICT teachers. It will also inform future policy, enabling understanding of good ICT practice and develop specific strategies to help non-ICT practitioners guide their learners. The findings for the study will also be useful to policy makers and policy

agencies to support them to make informed decisions related to ICT and education as it provides an in-depth personal practitioner account of non-ICT teachers' use of ICT in their profession. For more information on the methods used for data collection please refer to chapter 4. Finally, this study has focused on the use of ICT in teaching and learning in FE and spans New Labour's time in office from 1997 to 2010.

1.9 Research questions

1. How have national policies contributed to the promotion of ICT in an FE teaching environment?

2. What has been the contribution of policy agencies in supporting the development of non-ICT FE teachers to use ICT in their teaching?

3. What training and continuing professional development opportunities exist to enable non-ICT teachers to integrate ICT?

4. What personal and institutional factors affect non-ICT teaching staff using ICT in teaching?

1.10 Conclusion

In this chapter we have seen that the world has become a competitive marketplace and achieving economic advantage is vital. Policy-makers inform us that UK industries are demanding more skilled workers. There has also been an increase in the demand for better skilled ICT-literate employees in the workplace. New Labour felt that the future of British education should be driven by technology, remaining consistent in their determination to keep the focus firmly on ensuring the use of ICT in education including FE.

This chapter also highlighted that most young people have grown up with technology and routinely used it in their social lives, noting that their level of knowledge and skills are increasing. The same young people entering FE will expect to use technology in their learning to main their interest and motivation. The chapter warned FE teachers will need to

integrate ICT and keep pace with new technological developments to ensure a system of education that helps to prepare and educate the citizens of tomorrow. Finally, this chapter discussed the importance of this study to suggest that there is a gap between government policy requirements for ICT in FE and the reality of what is happening in FE colleges.

1.11 Overview of thesis

Chapter Two

This chapter reviews the past and current literature associated with the history of FE. The chapter outlines a brief history of teacher training in FE prior to and following incorporation. It also highlights New Labour's contribution to professionalising the FE workforce and the role of the Institute of Learning in supporting the new teaching qualifications and the CPD requirements. The chapter also explores New Labour's policy initiatives intended to realise its vision of ICT in FE.

Chapter Three

This chapter explores the literature related to the use of ICT in teaching. The literature suggests that implementing ICT in teaching and learning can be best understood as a series of personal and institutional issues. The chapter suggests that personal attitudes to ICT are closely linked to prior knowledge and levels of confidence. It notes that culture of individual colleges is influential in promoting or hindering staff learning.

Chapter Four

This chapter describes the research approach taken in this study. It describes how the data collection was undertaken and provides clear details of the triangulation of methods employed for data collection. This chapter also discusses the importance of addressing ethical issues, data collection methods, researcher effect, validity and reliability. Finally, this chapter addresses issues such as gaining access to participants, the sampling strategy, the understanding of a pilot study, data coding and data analysis.

Chapter Five
In this chapter I provide factual background information on the three FE colleges under study such as location, size, student intake, teaching staff in each of the schools of business studies, IT infrastructure, technical support, staff development provision, strategic plans and facilities related to computer systems.

Chapter Six
Findings – This chapter discusses the Government policies promoting the use of ICT in FE and identifies the role of the policy agencies in making ICT a reality. The chapter draws on discussions with the policy agencies to understand their views.

Chapter Seven
Findings – This chapter explores how the three Colleges under study support their non-ICT teachers to integrate ICT in their teaching and learning. It considers the current infrastructure and equipment usage as pre-requisites for implementing ICT. The chapter then considers how the three Colleges train and develop their teachers. The views of those involved are compared to understand the situation better.

Chapter Eight
The chapter discusses the views and perceptions of non-ICT teachers when they try to use and integrate ICT in their everyday teaching and learning. The institutional factors and personal circumstances that act as barriers are explored and comparisons made between the three Colleges under study. The chapter suggests that organisations such as FE colleges need to see their teachers as learners not just workers if New Labour's vision is to become a reality.

Chapter Nine
This chapter returns us to the research questions posed in chapter one. It also suggests a way forward related to the findings and provides some important recommendations for the three colleges when using and integrating ICT into the classrooms.

Professionalising the FE teacher – past and present

CHAPTER 2

> *"There can be no educational development without teacher development;...the best means of development is not by clarifying ends but by analysing practice."*
>
> *Lawrence Stenhouse, (1975 - cited in Rudduck and Hopkins 1995)*

2.0 Introduction

The intention to professionalise the FE teaching workforce is a relatively recent development, driven by the need to raise standards and ensure students acquire the necessary skills to become economically active in the knowledge society. FE teacher education was a cause for concern for some time and this was highlighted in *Success for All: Reforming Further Education and Training* (DfES, 2002) and again later in "*Equipping our Teachers for the Future: Reforming Initial Teacher Training for the Learning and Skills Sector*" (DfES, 2004). The *Foster Report* (DfES, 2005) identified the need to professionalise the FE workforce from initial training to continuing professional development. New Labour accepted the concerns of the Foster Report and demonstrated its commitment and mission to professionalise the FE workforce in the White Paper, *Raising Skills Improving Life Chances* (DfES, 2006). This remainder of this chapter discusses the historical context of FE and what it has meant for teacher training. It outlines some of New Labour's policy efforts to create a framework to professionalise FE teachers and explores its vision to integrate ICT into teaching and learning.

2.1 FE teacher training prior to incorporation – A brief but turbulent history

In order to understand teacher training in more detail we need to go back a few decades. Teacher training in FE has had a mixed history with the consequence that there was much variation in the philosophy and approach adopted by individual institutions (Huddlestone and Unwin, 1997). This was partly due to the history of FE with its roots in mechanics institutes (Pratt, 2000). It was not until the twentieth century that these institutions grew to

become technical colleges. During the 1960s there was a major expansion of the sector reflecting an increasingly broader vocational and academic curriculum. These factors meant that FE was becoming a fragmented sector serving an increasingly diverse range of learners and so it had no real identity (Tipton, 1973 cited in Green and Lucas, 1999). Although FE is recognised as a sector in its own right today, it still retains its distinctiveness because of its diversity of academic, professional, vocational and adult courses (Coles, 2004; Salisbury, Jephcote and Roberts, 2009).

Many of the staff teaching in FE came from diverse backgrounds (Robson, 1998). Some came with academic qualifications and others with professional qualifications gained from business or industry. Others qualified through craft or technical routes before coming into FE. Those with no formal qualifications taught with skills gained through personal interests or hobbies such as furniture making and flower arranging. Subject or vocational expertise was considered all that was necessary to teach in FE. "Teaching skills were seen as something to be 'picked up' through experience and professional knowledge, when valued at all, was equated with subject expertise" (Thompson and Robinson 2008, p162). Tipton (1973) pointed to the diversity of college staff which also reflected social divisions between graduates and non-graduates, industrially experienced and non-experienced, craftsmen, white-collar workers, managers, scientists, social scientists and so on. The diverse nature of FE meant that teaching skills were not tested to any standard. Interestingly, the lack of professional development of FE staff was highlighted as far back as the 1944 McNair Report and also in the 1959 Crowther Report.

There were no statutory requirements for FE teachers to hold a professional qualification (Huddlestone and Unwin 2000; Simmons and Thompson, 2007). Hence, their status remained low and they were not seen as professional in any real sense. However, there

were some opportunities for professional development. For example, in the 1970s staff development was likely to be about teachers being sent on external courses related to their subject specialism (Castling, 1996 cited in Huddlestone and Unwin, 2000) and in the 1980s, there was an increase in internal staff development programmes or Local Education Authorities (LEA) funded courses. At that time Initial Teacher Education (ITE) in FE was seen as desirable rather than crucial; the main emphasis was placed on subject specialism.

During the 1980s and 1990s there was much variation across the FE sector and no systematic monitoring. Teacher training available for FE teachers included the City and Guilds 730 and the Certificate in Education. However, as Lucas (2000) notes, the various courses did not form a unified whole as there was a multiplicity of accreditation schemes in existence. This meant that there was no mechanism for controlling the quality or content of any training offered (Young et al., 1995). This problem was further compounded by the fact that many teachers in FE saw themselves as specialist practitioners rather than professional teachers (Guile and Lucas, 1999). It is not surprising that the history of FE, its staff and teacher training has been described as one of 'benign neglect' (Lucas, 2004), reflecting its low status (McGinty and Fish, 1993; Fisher and Webb, 2006).

Griffen and Gray (2000) suggests that despite the fact that FE had been seen as the 'Cinderella' of the education system, it did receive political attention as a result of key reports such as the *Kennedy Report – Learning Works: Widening Participation in Further Education* (FEFC, 1997) which drew attention to learners and qualifications. A review of qualifications led by National Council for Vocational Qualification (NCVQ) in the mid 1980s intended to create a coherent framework for understanding and mapping qualifications led to an increase in competence-based vocational education and training qualifications such as NVQs and GNVQs. In order to assess students' work teachers were

required to achieve competence-based assessor and verifier awards called Training Development Lead Body (TDLB) 'D' units, better known as D33 and D34, intended to accredit staff so they could verify NVQ workplace assessment methods (Lucas, 2004). Colleges tended to spend money on teachers achieving the D32 /D33 awards rather than on other types of staff development (Young et al., 1995). A criticism of these qualifications was that they were designed around the TDLB industry-based standards (Huddlestone and Unwin, 2000). This made them inadequate as a teaching qualification (Elliot, 1996) because they were intended to assess outcomes in industry, so they had nothing to do with teacher education as a whole (Chown, 1992).

Many considered that competence-based training de-skilled rather than professionalised FE teachers (Hyland, 1994; Lucas and Betts, 1997). Moreover, there was no strategic leadership from government departments so the provision for ITE and Continuous Professional Development (CPD) varied across the FE sector (Hoskyns, 2004) and lacked any systematic monitoring (Guile and Lucas, 1999). In the light of the above developments, Guile and Lucas stressed that in 1999 it was hard to argue that FE had formed an education sector in any real national sense, nor despite its expansion, had it achieved anything comparable to the statutory status of schools or the prestige of universities.

2.2 What has incorporation meant for FE teacher training?

The Conservative government of the day characterised FE as a problem requiring a policy solution. It sought to control and to reform the education system though the introduction of the Further and Higher Education Act 1992. In 1993, FE colleges in England were removed from the control of LEAs and became self-governing corporations (Jackson et al., 2003). Incorporation led to the severing of funding links between colleges and LEAs leaving colleges to control their own budgets and having the freedom to compete in the

training and education market (Gleeson et al., 2005). The damaging effects of incorporation became firmly embedded in the FE sector. Blunkett (2000: para 14) states that:

> *"Instead of being supported by Government in meeting the demands of a dynamic economy, the sector was pushed into competing by pseudo-markets established after 1992."*

The Further Education Funding Council (FEFC) became responsible for the funding and governance of the newly incorporated colleges. However, in terms of teacher training and staff development, the FEFC took no part in the decision-making process, leaving funding for staff training to the individual FE colleges (Cantor et al., 1995). Discussing the impact of Conservative legislation on the schools and colleges, Ball (1994 cited in Avis et al. 1996 p.28) noted that 'financial survival, public relations and image management took priority over professional concerns about the curriculum and student learning. He concluded that what was once the core of educational practice was becoming peripheral. College management gave priority to meeting efficiency targets and the funding criteria (Avis, 1999) rather than investing in FE teaching staff development.

During the 1980s and 1990s there was a massive increase in the number of students participating in full-time and part-time provision (Cunningham, 1999). Increasing revenue through student recruitment was seen as a priority to ensure institutional survival, which also increased competition between institutions (Ainley and Bailey, 1997). 'Teacher training in some colleges was not even considered a right with managers preventing new staff from attending courses because they needed them to teach' (Clow, 2001, p409). Administrative demands from the FEFC led to a situation where Management Information Systems training were considered more important (Perry, 1997). Consequently, teacher training and professional development were seen as less of a priority and did not form part of colleges' long-term strategic plans (Young et al., 1995). Many colleges did not provide

staff development to part-time staff (Lucas, 1999). The FEFC funding mechanism forced colleges to make further efficiency savings through restructuring, reorganising curriculum areas and departments as a way of reducing academic staffing costs (Burchill, 1998). FE managers were forced to make redundancies, replacing full-time posts with part-time and hourly paid teachers (Williams, 2003) and frequently less qualified staff (Green and Lucas, 1999).

2.3 What were the status-related problems faced by FE teachers?

Incorporation seriously affected the morale of FE staff as they went through bitter disputes with college employers (Lucas, 1999). This created an atmosphere of confrontation and oppression from college managers (Gibbons, 1998) with increased surveillance in the attempt to measure and monitor performance outcomes (Randle and Brady, 1997). Staff salaries came under review leading to further conflict and industrial disputes (Williams, 2003). Further efficiency saving were made by cutting class contact hours forcing staff to teacher on more courses. Consequently, teachers complained that this did not leave them enough time to deliver the courses or to meet students' learning needs (Huddlestone and Unwin, 2000). Cantor et al. (1995) noted that colleges were more like 'production lines' dealing with 'customers' and responsible for the 'quality and efficiency' of their own provision.

Incorporation saw a massive forced and voluntary exodus of teachers (Taubman, 2000). Job losses were widespread and those remaining faced the continuous threat of redundancy (Burchill, 2001). Not only were FE teachers' professional identities challenged (Shain & Gleeson, 1999), but also the accountability measures introduced by the FEFC resulted in increased administrative workloads leaving teaching staff feeling that such measures were there to control them, reflecting a distrust of professionals (Yarrow and Esland, 1998). According to Jephcote et al. (2008) many teachers felt stressed by the volume of work and

indicated how their workloads impacted on their own wider lives. In such an environment teachers did not feel valued. Later, the situation in higher education reflected that of FE, where teachers had changed from being "largely autonomous professionals in organizations to being somewhat more like supervised workers in a tightly-managed business" (Ramsden 2000, p.19). Incorporation meant that FE teachers lost their identity as performativity and compliance dominated their lives (Briggs, 2005). This culture has not entirely disappeared; it is clearly recognised today by trainee teachers while on their FE placements (Dixon, 2010).

2.4 New Labour's contribution to training FE teachers

Prior to the election of New Labour there was no statutory requirement for further education teachers to be trained (Lucas, 2007). New Labour wanted to raise the standards of teaching and learning in FE and also bring coherence to the range of vocational qualifications in existence. New Labour appointed a government led organisation, the Further Education National Training Organisation[8] (FENTO), in 1998 to develop a competence-based framework for mapping the qualifications. This framework then used to develop a set of Standards for Teaching and Supporting Learning in England and Wales, which were launched in January 1999. In the beginning FENTO was received with mixed views. It was broadly welcomed by the union, National Association of Teachers in Further and Higher Education, (NATFHE), now renamed the University and College Union (UCU), as a welcome attempt to bring about a coherent framework to teacher training and to give FE teachers recognition as a profession. However, the FENTO standards also met with criticism because they evolved from a competence-based model derived from and

[8] The work of FENTO was subsumed in January 2005 into the UK Lifelong Learning Sector Skills Council - LLUK. Lifelong Learning UK is taking forward the work on reforming the standards for teaching, tutoring and training in the learning and skills sector (LLUK/FENTO, 2005).

therefore similar to the TDLB units so raising concerns that the standards would be unbalanced (Orr and Simmons, 2009).

There was some concern that New Labour appeared to be treating FE differently from other sectors (Lucas, 2000). Lucas further pointed to the fact that primary and secondary school teachers were represented by a professional body established under New Labour, the General Teaching Council established in 2001. In higher education, the Institute of Teaching and Learning (later to become the Higher Education Academy) was being established. Yet, for FE, the sole responsible body would be an employer-led organisation, FENTO, representing the professional interests of FE teachers (Guile and Lucas 1999). Despite the criticisms, FENTO represented an important first step towards recognising FE lecturers as professionals. Indeed, at the launch of the teaching standards, FENTO identified one of its major aims as establishing a professional body for FE teachers. It was pushing for mandatory Qualified Teacher Further Education (QTFE) for lecturers in England, which would put FE staff on a par with school-teachers. From 2001 all new entrants to FE teaching posts were required to obtain a teaching qualification based on the FENTO standards (Le Gallais, 2004).

From April 1999 to December 2003 New Labour made yet another attempt to raise standards in the teaching profession by ensuring that full-time teachers were proficient in the use of ICT in the classroom in order to improve teaching and learning in their subject areas. The Green Paper *Teachers: Meeting the Challenge of Change* (1999) called for better leadership, rewards, training and support to achieve success. To realise this new initiative the Government invested millions from the national lottery into the New Opportunities Fund (NOF) into ICT teacher training (DFES, 2003). The NOF was led by the Teacher Training Agency (TTA). The TTA produced a list of training outcomes

which applied to serving teachers. Later the universities were expected to embed these within initial teacher education courses such as PGCE and B.Ed. courses (Conlon, 2004).

Despite New Labour's best efforts, the NOF training failed to build teachers' ICT skills and the success of this initiative was limited. The NOF received a battery of criticisms. According to Ofsted (2002) a number of reasons contributed to the failure of this initiative, such as lack of technological resources and failure to motivate teachers. In the same Ofsted report, it noted that the NOF programme proved unsatisfactory and its effect on classroom practice had been disappointing. There was also a lack of focus about the understanding of the work done by teachers and an underestimation of what is involved in developing teachers' appropriate knowledge and skills (Conlon, 2004). In addition, there were concerns that the adoption of a 'one size fits all' concept did not take into account teachers' existing knowledge and experience (Morris, 2012). The top-down approach of this mass politically-driven programme for teachers to undertake ICT-related CPD training was doomed to failure as the teachers' needs were not considered.

New Labour acknowledged that FE teacher education and teaching standards received little attention under the previous Conservative government with the consequence of loss of status, low morale, stress and insecurity for teachers (DfEE, 1999a). In document, *Colleges of Excellence and Innovation* (DfEE, 2000a) Blunkett noted,

> *"Little or no attention was paid to the standard of provision, whilst the status and standards of further education teaching were completely neglected. Not surprisingly, morale hit rock bottom. Further education lost much of its attractiveness as a sector in which to teach."* (para. 73)

Blunkett highlighted the fact that New Labour wanted to provide teachers with opportunities to develop successful and rewarding careers within the sector. In addition, it wanted to address the shortcomings of the FE system, which were stressed in both

Learning Works: Widening Participation in Further Education (FEFC, 1997) and *Improving Literacy and Numeracy: A Fresh Start* (DfEE, 1999a), which highlighted the fact that many young people in FE were not always being taught by appropriately experienced and qualified staff (Cole, 2004; Hoskyns, 2004). New Labour wanted all full-time teachers in FE to hold or to have begun to undertake a recognized teaching qualification within two years of taking up employment in FE (Hodgson and Spours, 1999; Simmons and Thompson, 2007).

Success for All (DfES, 2002) became a key document giving New Labour direction for change and so formed the basis for its reform strategy for FE. The DfES in 2003 published a document outlining plans for the future of FE teacher training, entitled, *Consultation on Initial Teacher Training in FE* in response to Ofsted inspection report highlighting areas of weakness in teaching and learning in the FE sector (Le Gallais, 2004; Coles, 2004). In addition, *The Initial Training of Further Education Teachers* (Ofsted, 2003) found that almost ninety per cent of FE teachers begin their teaching careers in FE without a formal teaching qualification, which then achieve on a part-time in-service basis. The report stated that there had been limited progress in improving the quality of Initial Teacher Training (ITT) courses. BBC News (11/11/2003) on-line web site reported that Ofsted found that newly-qualified sixth-form and FE college teachers were 'poorly trained' and that a third of the trainees did not have the equivalent of GCSE grade C in English and Maths. The news article also pointed out that the Chief Inspector of Schools, David Bell, raised some crucial concerns over the quality of FE teacher training courses. Many of the weaknesses identified in the 2003 report were highlighted again in Ofsted's 2004-5 inspection report which found that training lacked the practical elements of ITT and that they were poorly integrated. Based on this report, the Ofsted's Director of Education, Miriam Rosen, noted that there was still considerable work needed to bring about improvements in ITT for FE teachers and

advocated improving the practice element of teacher training courses. The weaknesses identified above were then addressed in "*Equipping our Teachers for the Future*" (DfES, 2004) and heralded new reforms, which would be implemented by September 2007.

New Labour's commitment to professionalising FE teachers can again be seen in response to the White Paper, *Further Education: Raising Skills, Improving Life Chances* (DfES, 2006). Brand (2007) mentions that other documents such as *The Initial Teacher Training of Further Education Teachers* (Ofsted 2003a) and *The Future of Initial Teacher Education for the Learning and Skills Sector* (Ofsted, 2003b) both played an influential role in the introduction of qualified teacher status in the learning and skills sector. Kim Howells, Minister for Lifelong Learning, Further and Higher Education enthusiastically announced at the Department's annual Teaching and Learning Conference in 2004 that these reforms would lead to teachers enjoying a new professional status in the same way as their school colleagues do. Many in the FE sector welcomed this news, although those who had been in FE since incorporation were more cautious about its potential. The FENTO standards were considered by Ofsted (2003: 4) to be "not an appropriate tool for judging the final attainment of FE trainees". Nevertheless, they remained the basis for ITT until September 2007 (Orr and Simmons, 2009).

2.4.1 ***The new qualifications – what do they mean for FE teachers?***

In September 2007 key changes to the training and development of the further education workforce were introduced through professional occupational standards for IIT and CPD. These standards apply to all existing and newly appointed teachers in all FE colleges and other post-16 publicly funded providers (LLUK, 2007a). Unlike schools, the diversity of FE means that teachers continued to be employed in FE prior to undertaking their teaching qualifications so they usually learn on a part-time basis while in-service (Jephcote and Harper 2010). Today, those beginning their professional careers in FE or interested in

joining FE can do an introductory award, 'Preparing to Teach in the Lifelong Learning Sector' (PTLLS, level 3/4). Staff would then be expected to work towards other teaching qualifications depending on the extent of their role. For example, those with a full teaching role would work towards the Diploma in Teaching in the Lifelong Learning Sector (DTLLS, level 5/6/7) which would give Qualified Teacher Learning and Skills (QTLS) status. Those with a lesser teaching role would achieve a Certificate in Teaching in the Lifelong Learning Sector (CTLLS level 3/4) allowing them to achieve the status of Associate Teacher Learning and Skills (ATLS, level 3/4). The level 5 qualification, the Diploma in Teaching in the Lifelong Learning Sector, makes specific references to ICT as set of descriptors to cover a broad understanding of ICT. Presumably, teachers and trainers can draw on these. There is no doubt their inclusion is an important step in highlighting the significance of ICT but it must be recognised how competent teachers become depends on many factors, such as the ICT capabilities of the trainers, the trainees own subject specialism, opportunities afforded to the trainee to practice and support from the teacher trainer institution or the college ultimately employing the trainee or fully qualified teacher. Steketee (2006) considered that all teacher training programmes need to effectively prepare future teachers to use ICT so they can understand the benefits for them and their learners, supported with practical activities to promote the development of ICT materials so teachers can see how it can be used in the classroom. CPD should then continue to develop the ICT skills of teachers as technology changes. In the UK the Institute for Learning (IfL) was established in 2002. It is the professional body responsibility for the licence of teachers, tutors and trainers in the FE. Its role is to ensure the professional formation of all new or existing teachers within a five year period of commencing employment in order to confer the status of QTLS or ATLS. Professional formation is then maintained through CPD.

2.4.2 What is professional formation?

In order to renew the licence, each teacher in FE must complete an annual tariff of appropriate CPD activities. Teachers must submit their CPD record to the IfL through its online system, *Reflect,* and demonstrate how the Lifelong Learning UK standards are evidenced in their teaching and learning (IfL, 2007). The account consists of two forms of evidence. Firstly, there are the mandatory elements, such as completion of the approved qualifications. Secondly, there are personalised elements based on an individual's development preferences. These could include in-service training, reading professional journal articles or books, peer learning, mentoring or shadowing, online learning, reflective practice and future planning of CPD activities (IfL, 2007). The process can be seen below.

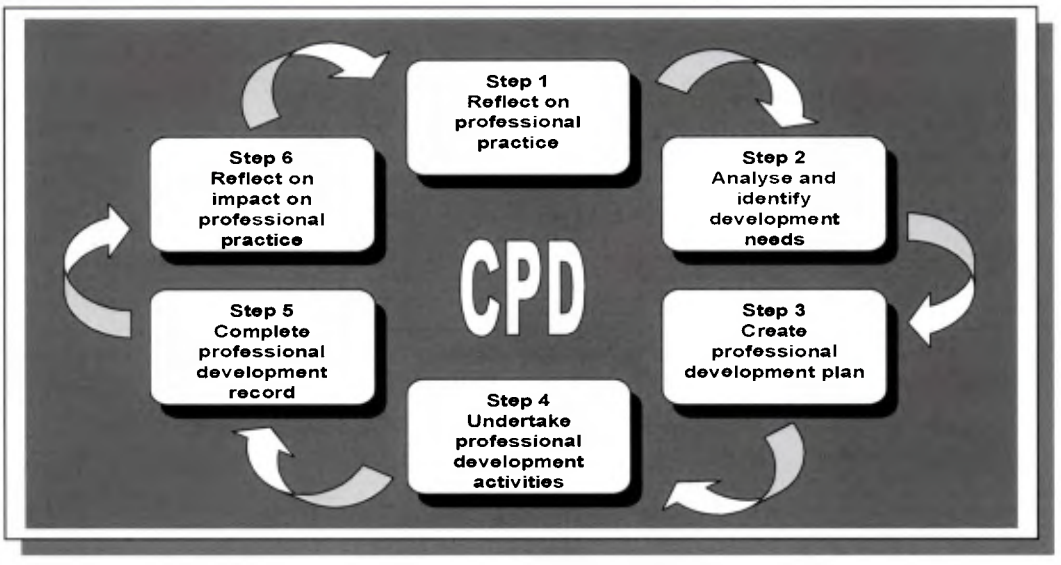

Diagram 1: IfL's Continuous Personal Development process

Once awarded QTLS, teachers need to make a career-long professional commitment, demonstrating evidence that they have updated their skills and knowledge by completing 30 hours of CPD every year, with pro-rata amounts for those on sessional, fractional or part-time contracts (DIUS, 2008a). This is a condition of renewing their licence with the IfL. For in-service trainees, the CPD requirements are part of their ITT. The new

requirements mean colleges have to take CPD more seriously, incorporating it into their strategic planning (Lucas and Unwin, 2009).

Souber, (2006) expresses concerns about the 30-hour CPD requirements, suggesting that it would be extremely difficult for existing teachers to meet the new requirements, given that they have a full-time teaching load. Villeneuve-Smith et al. (2009) accept the value of the CPD requirement, but also warn that, 'There is a case that only actively managing something because you've been told to – when there is a strong case for doing it anyway – is the worst of all possible approaches' (p.3). The CPD requirement for professional practice has been welcomed for its potential to empower professionals but also criticised as being externally imposed and also lacking support networks to enhance development leading to 'uncritical individualism' (Appleby and Hillier, 2010). Loughran and Gunston (1997), cited in Shortland (2004), offer the view that professional development is not something that is done to the teachers, but rather there must be a climate that supports and encourages individuals to invest in their own personal growth. These observations are extremely important because they highlight that CPD should not be a burden imposed by politicians or management but should be an agreed activity which has relevance to their individual role and needs. For CPD to be taken seriously, teachers must be given the necessary time and have control over their own learning. This is especially important because as LLUK (2000) states, 'Attracting and recruiting the best people to the further education sector is essential to provide a first-rate experience for all learners and meet the changing needs of the sector' (LLUK, 2000, p10). Although IfL boasts many successes, others have questioned its claims to professionalise FE teachers. Throughout 2011 the UCU advised members to boycott demands from IfL for teachers to pay their own fees. UCU justified the action on the grounds that members believe the IfL is not fit for purpose. The coalition Government agreed to an independent review to look at the role and effectiveness

of the IfL (ucu.org.uk). New Labour introduced these new initiatives for teacher training and a promise to raise the status of FE teachers, today, a decade on, the reality is that school teachers' status and salary still remain above those of FE teachers (Coffield et al., 2008). The Conservative– Liberal Democrat Coalition Government policies are still evolving and its ultimate position on FE remain to be seen.

2.5 Utilising ICT in teaching and learning

Over the last decade there have been calls for teachers to acquire ICT skills. For example, in 1998, the Higginson Committee highlighted major problems with the ICT skills of teachers in FE colleges and called for considerable staff development to enable them to be more effective in their use of ICT to support learning. A 1998 FEFC study evaluated the use of ICT as a method of delivery in classrooms and found that only a few teachers routinely used ICT to improve learning. The first real attempt to formally introduce ICT in to teacher training came with the first publication of the FENTO Information Learning Technology (ILT) Standards in 2002. Since then role of technology has grown slowly in FE compared to its much faster pace in schools. Becta (2003) reported that 'ICT has been made an integral part of the ITT National Curriculum and trainee teachers in schools must demonstrate that they use ICT effectively in their teaching and that they must also pass a skills test in ICT before being awarded qualified teacher status' (p.1). Yet, the extent to which ICT training was being enforced was not uniform across the education sector. Evidence of uneven practices is highlighted in an Ofsted (2006) report on initial training of FE teachers. The findings from this inspection report of teacher training course during 2004/05 states:

> *"Only a few providers offer additional certification opportunities, for instance in ICT, but more usually there are no optional elements to cater for particular needs or circumstances. Support for trainees in developing ICT competence is often constrained by the lack of suitable resources."* (p.7)

This is an important observation because it highlights that individual needs vary, especially when teachers are at different levels of ICT knowledge and application. The same report found that improving trainee teachers' key skills was not always successfully embedded in the training and that support for these trainees in developing ICT competence was often constrained by the lack of suitable resources. The inspection report went on to state that with a few exceptions,

> "*The arrangements for ensuring that trainees receive appropriate support to develop their literacy, numeracy and ICT skills were not effective.*" (p.10)

This suggests variations in institutional support and that a more coherent system needs to be implemented across the sector which must include clear guidelines and appropriate resources. However, the most alarming finding in the inspection report was that while trainees' literacy skills were assessed prior to their course, their numeracy and ICT skills were rarely evaluated. This suggests that ICT was not given the importance it deserved. In August 2007, the LLUK's '*Guidance for awarding institutions on teacher roles and initial teaching qualifications*' published in August 2007, claimed that they were actively involved in the development of technology and e-learning. In September 2011, the Learning and Skills Improvement Service published its '*Qualification guidance for awarding organisations, awarding bodies and higher education institutions*' which now includes the need for all trainee teachers joining this qualification programme to undertake an initial assessment of their skills in English, maths and ICT. However, the qualification learning outcomes assessments require the teachers to demonstrate that they can 'provide opportunities for learners to practice their ICT skills.' This would suggest that it may come down to the ICT knowledge, skills and ability of the individual teacher as well as the subject taught, given the diversity of FE. It also suggests that similar factors may affect those delivering teacher training in terms of creating demands for the use of ICT.

2.6 New Labour's vision of ICT for FE

From the time New Labour came to power, its agenda was very much focused on the learner rather than the teacher (DfES, 2002). It did not want ICT to be used just as a teaching aid, but to engage students to become lifelong learners particularly to gain the employability skills and qualifications needed in a modern economy (DIUS, 2008b; DIUS, 2010). New Labour's ICT agenda was 'conceived and perpetuated as a concerted attempt to change the economic 'mindset' of future workers towards a technologically-based global competition, up-grading the skills base of emerging cohorts of young people and creating the 'workforce flexibility' to counter the threat of a global labour market' (Selwyn, 2008, p708). However, New Labour's vision of the digital learning age may not have been as straightforward as promotional policies initially suggested. From the very beginning, Guile and Hayton (1999) stressed that such technological utopianism may be misplaced because learning is not simply a matter of sitting students in front of a computer screen but is a social activity, which requires teacher and student to engage in specified tasks. Access to computers in the classrooms is, of course, an important prerequisite for the implementation of ICT in teaching, but of equal importance must be supporting the teachers to become confident and competent in its use. In order to ensure the integration of ICT in education, New Labour turned its attention to policy agencies to ensure to make its vision a reality and increase the uptake of learning through the use of technology across the education sector in England. Once of the most well known is the British Educational Communications and Technology Agency commonly known as Becta. These are discussed in Chapter 6.

2.7 The role of the teacher in an ICT classroom

A teacher in FE today is responsible for a range of activities which includes planning and preparation of teaching materials, setting targets, assessing and marking assignment work, mentoring students, invigilating exams, developing new courses, interviewing prospective students, and meeting administrative requirements. The role also includes guiding,

encouraging and motivating students (Dowling, 2003). Teaching requires considerable expertise on the part of the teacher making it one of the most challenging and important professions in the world. Whatever profession you want to enter, you have to learn from a teacher. However, the pace of change since FE incorporation has created a climate of endless policy directives to the point that they are expected to readily accept and comply with educational initiatives and institutional instructions without question. In 1996, Esland made an interesting point that the role of the teacher was to implement educational state policy and not to challenge or engage critically with it, even if this meant accepting procedures, which were seen as unjust or anti-educational. The same is true today more than fifteen years on (James and Biesta 2007) as teacher workloads increase; they must juggle their professional lives to meet new demands. Another requirement for FE teachers is to learn and use ICT as a key teaching tool. However, this presents many challenges.

Many writers describe some of the important adjustments required to create an ICT-rich environment. For example, Salomon (1990) highlights that changes must include the curriculum, learning activities, learning goals, lecturers' behaviour, social interaction and evaluation, which are all interwoven into a whole new 'orchestrated learning environment' (p.51). This means for many teachers, they will have to reconceptualise the way they think and teach (Ramsden, 1998; Bates, 2000). Indeed, Guile (1998, cited in Reynolds et al., 2003) observes that teaching with ICT is not suited to the traditional pedagogical styles in which teachers are "solely managers and didactic teachers" p.152). He further explained that teachers would need to ensure that "different types of learning (i.e. transmission and inquiry-based) are clearly differentiated and carefully related to the proposed use of ICT" which means that both the teacher and the learner have their respective responsibilities in the learning process. Guile further stated that only this fundamental change would "ensure ICT can fulfill its potential as a resource to make learning more intrinsically satisfying and

meaningful" (p.152). Reynolds et al. (2003) also agree with Guile that any changes would be the result of teachers designing new contexts and learning processes to enable the use of ICT. They concluded that a revolution was required in the way teachers plan and deliver their lessons in order for the changes to occur. However, the revolution must include the rethinking of the relationship between the process of learning and their role in supporting learning (Laurillard, 1998).

Introducing ICT into the classroom changes the teacher's role from being the main source of information to that of a facilitator (Clark, 2000) a moderator, responding to comments, stimulating debates and asking open questions (Williams, 2002). Similarly, Mortimore (1999) suggests that when teachers work with ICT, it involves the delegation of the responsibility to learners and successful learning outcomes depend on learners' ability to work independently. If this is the case, then teachers must reconsider and restructure their role to act as a guide and facilitator supporting learners to make their own judgments about the quality and validity of new sources of knowledge, helping students to demonstrate new types of understanding (Selinger, 2001). This further suggests that the ways in which teaching can be 'reinvented' in order to use ICT as a catalyst for that change needs to be addressed (Selinger, 2001). However, Sillanpaa and Ilomaki (2003) argue that ICT as such does not change the teachers' work, but it offers possibilities for change.

It is important to recognise that it is the teachers who hold the key. Modern technologies in education such as the interactive whiteboards, digital projectors, Moodle[9], blackboards[10], blogs[11], wiki[12] and many other new initiatives will have added new concerns for FE

[9] **Moodle** is a VLE. It is designed to help educators create online courses with opportunities for interaction. Its open design means that people can develop additional functionality.
[10] **Blackboard** is another VLE used in educational settings. It is used for communication, uploading of content, return of students' work, administration of student groups, collecting and organizing student work, tracking tools, etc.
[11] A **blog** is a software program usually maintained by an individual making regular entries of commentary, descriptions of events, or other material such as graphics or video. Many blogs provide commentary or news on a particular subject. A typical blog combines text, images, and links to other blogs.

teachers who are already busy in their profession. Those teachers who have acquired the knowledge and experience of ICT may say that modern technologies and developments have made it much easier to teach, whilst those without these new skills may see ICT as an added burden. As learning technologies continue to evolve, unavoidable pressure is put on teachers to keep updating their knowledge of both the technology and its use in their relevant subject areas. Compared to previous generations, today's learners have changed; therefore the skills of teachers must also change. This may be more problematic because one of the main obstacles is that some teachers have not fully recognized that we are living in times where students not only have greater access to information but also to a wide range of technology (Selinger, 2001). Today, one of the biggest challenges educational institutions face is how to address their 'low-tech' teachers' needs for them to be able to cope with their new 'high-tech' students expecting to study in a 'high-tech' environment. Many of these 'low-tech' teachers who consider themselves as unskilled in using ICT may feel anxious about using ICT in front of their students, especially when their students may know more than they do. There may also be fears that due to technology the teacher may become an endangered species and may even be replaced by computers. The pace of technology means that teachers must embed ICT if they wish to remain employable in the future (Blass and Davies, 2003). Integrating ICT is not a simple matter but requires time, perseverance and understanding of its relevance to the educational arena. Like it or not ICT is here to stay and a 'single jab' of ICT training will not be enough to gain teachers' dedication and commitment. Teachers must be adequately trained to become competent in its use. For ICT to be successfully implemented in the FE education system there needs to be a realistic and sincere acknowledgment by the Coalition that appropriate steps are needed to promote the use of ICT supported through substantial funding. Currently, what is

[12] **Wiki** is a page or collection of web pages designed to aid anyone who accesses it to contribute or modify content, using a simplified language. Example: wikipedia is a well know wiki.

missing is the voice of the FE teachers, especially as they struggle to acquire new pedagogical skills in order to take full advantage of the potential of ICT.

2.8 Conclusion

This chapter outlined a brief history of teacher training in FE prior to incorporation. It considered the factors that contributed to the low status of FE teachers including the diversity of FE colleges, the lack of any statutory requirements for FE teachers to be trained and turbulent political changes affecting FE as key factors in deprofessionalising them. The chapter provided a clear picture of the effects of incorporation for FE teachers, highlighting the resulting conflicts between management and academic staff as both struggled to cope with the demands and consequences of incorporation. This chapter also discussed New Labour's policy initiatives to re-professionalise FE lecturers and introduce professional standards of teaching and learning through a reform of teaching qualifications and the work of the Institute for Learning in ensuring FE teachers retain their 'licence to practise'. The chapter outlined New Labour's responses to independent reports highlighting the lack of ICT in education. The chapter concludes that professionalising FE lecturers is still a work in progress and much needs to be done to integrate ICT in FE. In the next chapter we will see some of the issues affecting non-ICT teachers integrating ICT in teaching and learning.

CHAPTER 3

> *"Presidents may dream visions, and vice presidents may design plans, and deans and department heads may try to implement them, but without the support of the staff members nothing will change".*
> Bates, A.W. (2000:95.)

3.0 Introduction

The introduction of technology in education has created opportunities for more exciting teaching. Many innovative teachers have taken the initiative to develop ICT to increase their personal technological skills to embrace new ways of teaching and learning. However, many more are faced with a number of personal and institutional problems when trying to take up ICT in their professional practice. This chapter explores the current literature on the subject and highlights some of the issues affecting FE teachers in the integration of ICT in a classroom setting. With regard to the literature review, the author has made every effort to explore a variety of journals related to ICT and teaching in FE. It has to be noted that there has been little research done by academics for the FE sector. However, there seems be a considerable amount of research relating to the use of ICT in compulsory education and higher education. Research in FE seems to have been done mainly by the policy agencies as mentioned in the previous chapter. Their findings and concerns will be used to provide a fuller picture of the situation.

3.1 Technology in education

During the last decade we have been hearing about many different concepts of learning such as 'flexible modes of learning', 'virtual classrooms', 'classrooms without walls', 'e-learning'. Today, we rely on the 'Internet', 'World Wide Web', 'computer based software packages', 'interactive videos', 'multimedia', 'audio graphic systems', 'video

conferencing', 'virtual learning environments and managed learning environments[13]'. These technologies are still evolving and it is likely be some time before they can be fully integrated into the education system. Many educational institutions, including FE colleges are embracing the use of technology in their teaching without really getting to grips with the extent of the paradigm shift required to make technology a success (Blass and Davis, 2003). Kirkwood and Price (2005) stress that ICT is often introduced into education with little consideration as to how it might actually improve learning. Sutherland et al. (2004) share this view and believe that "ICT alone does not enhance learning. How ICT is incorporated into learning activities is what is important." (p.6). Krumsvik (2008) stressed the current and future teachers must be able to create technology rich learning environments for learners which support learners' learning and so must have adequate levels of knowledge and be competent themselves. Drawing on the quotation at the beginning of this chapter by Bates, (2000), College Principals and Vice Principals may dream, staff development and ILT Managers may plan, but they all need to understand that the greatest responsibility for change has to lie with the teachers and without their support nothing will change. For this to happen, the benefits of ICT in education must be understood by all concerned.

3.2 Benefits of ICT in the classroom

There is a vast body of evidence highlight the opportunities new technologies offer to transform teaching (Mumtaz, 2000; Veen, 2003; Becta, 2008b; and Selwyn, 2008). Most people would agree that with the advancement of technology, textbooks are no longer the

[13] Virtual Learning Environment (VLE) refers to the components in which learners and tutors participate in "on-line" interactions of various kinds, including on-line learning. Managed Learning Environment (MLE) includes the whole range of information systems and processes of the College that contribute directly or indirectly to learning and learning management

main source of information and teachers are no longer seen as the only expert repositories of knowledge for learners (Barak, 2006). ICT creates a shift in the student-teacher relationship, rather than completely replacing the traditional role of a teacher. ICT enables teachers to create new practices so the teacher becomes a guide or facilitator of learning. ICT moves teachers from traditional roles of 'content delivers' to facilitators providing content rich activities (Ilomäki, 2008, p.20). However, as learning with ICT becomes more embedded in the education, the role of the teacher will continue to shift and may even change dramatically. ICT is considered to have the potential to engage learners in the learning process and meet their different academic needs, abilities and learning styles.

Today, the Internet provides vast opportunities to develop learners' abilities to select and manipulate information and develop their critical thinking skills, leading to deeper learning. The Internet enables learners to enter subject worlds to select, explore, manipulate and utilise a range of resources, to help them gain a detailed understanding of topics to enhance their knowledge (John and Sutherland, 2004) in a way that is not possible with textbooks. Boyle (1997) and Wilson (1997) both agree that by using ICT, learners have ownership of the learning process, experience the construction of their own knowledge and develop self-awareness of the knowledge building process. ICT has been found to positively challenge intellectual skills, promote independent learning, encourage problem solving and generate teamwork as well as encourage participation in collaborative networks (Law et al., 2002). Surprisingly, evidence of the potential of ICT to improve cognitive thinking in the classroom comes from studies on video and digital computer games. Klopfer et al. (2009) draw on the work of various writers to show that games have been found to increase the ability of learners to process information much faster, process different sets of information

at the same time, improve decision making, build concepts and determine the relevance of information. It facilitates multi-tasking.

Studies on technology show the positive effects of ICT in developing active classroom learning. An ICT Impact Report by Balanskat et al. (2006) identified many positive outcomes. For example, ICT was found to increase learners' attention spans and improve attainment levels because learners are more willing to engage with tasks either working alone or in groups leading to improved behavioural outcomes. The ICT Impact Report noted that ICT can create opportunities to practice or revise information covered in new and interesting ways. In addition, because they are the controllers, it encourages learners to question their own understanding and take more responsibility for their own learning. ICT also provides fast and accurate feedback to learners, speeding up information processing, thereby freeing learners to focus on strategies and interpretation of the task (Becta, 2004). Further research carried out by Becta in 2007 states, "Technologies with a visual dimension - digital video, photography, video conferencing – engage pupils and provide a stimulus for collaborative working and discussion and, where the pupils are in control of the technology, give them a sense of ownership and control of the learning process" (p.6). Other literature indicates that levels of collaboration and communication can be improved by the use of computers, as they can help knowledge building (Sandholz et al., 1996; McFarlane, 1997) providing learners with learning experiences that other strategies cannot provide (Wellington, 2005). Technologies offer enormous potential to stimulate student learning and develop their intellectual skills, encouraging spontaneous interest more than traditional approaches can do so that learners concentrate more (Gregoire et al., 1996). This view is also held by Selinger (2002), who considers that if handled well ICT can increase

levels of motivation, particularly amongst the apparently 'least able'. It also engages the more disaffected (Walker and Logan, 2009), builds confidence and self-esteem (Somekh et al., 2007). Haywood et al. (2005) describe a number of studies relating to learners' use of ICT at the University of Edinburgh carried out from 1990 to 2004. These studies consistently indicate that most learners are ICT-skilled and hold positive views about ICT in education. The findings show that the majority of learners use ICT regularly in their studies and expect to be asked to do so.

3.2.1 Benefits of using ICT for teachers

ICT can assist teachers in the preparation and delivery of classes and make their administrative tasks easier. ICT creates new enthusiasm for subject delivery. Ofsted (2002a) identified the potential of ICT to make teaching resources multi-sensory and activities both attractive and interactive so leading to high quality lessons. ICT can also help to lessen duplication of effort when preparing lesson plans, worksheets, compiling a bank of exam questions and maintaining grade-books and reports (DfES, 2002). Using ICT generates less paperwork, reduces filing and photocopying and more importantly ensures better accuracy and quality of documents (PwC, 2002). Other benefits identified by Golden et al. (2006) include managing learning, preparation and presentation. These can be seen in diagram 2.

Managing learning

- Preparing and sharing course materials
- Communicating with learners
- Managing individual target setting
- Testing learners understanding
- Tracking learner progress.

(Golden et al., 2006)

Preparation & presentation

- Presenting information
- Preparing schemes of work
- Researching and accessing teaching materials
- Creating teaching materials

(Golden et al., 2006)

Diagram 2: **Effective use of ICT**

Dawes (2001) believes that ICT not only has the potential to support teaching and learning across all curriculum areas and provide opportunities for fast and effective communication between teacher and learner in innovative ways never done previously. ICT can improve the lives of teachers by making their teaching-related work easier, quicker and more efficient (Maddux et al., 1997), especially through the transfer of electronic data (Irving, 1998). ICT makes reporting to stakeholders much easier and faster (Mayo, 2000). Becta (2005) states, "ICT has the potential to address workload and productivity issues, but warns that institutions and practitioners need a better understanding of how technology applications can realise efficiencies" (p.2). Government policy makers and educational researchers agree on the benefits of ICT in education but the problem lies in the precise role that it will play, and how best to integrate it in the classrooms to bring about its effective use (Livingstone, 2011) and improve learning (Burke, 2000 cited in Britten et al., 2006). Technology on its own cannot improve teaching. "Good teaching may overcome a poor choice in the use of technology, but technology will never save poor teaching; usually it makes it worse" (Bates, 1995, p. 8). Using ICT effectively presents challenges. For some teachers ICT may be seen less as opportunities to be explored and more as barriers to be overcome. For these teachers, use of ICT may be a case of 'rolling the stone up the hill' (Leat, 1999). It is important to point out that a barrier faced by one teacher may be seen as an opportunity by another teacher. Increased exposure to ICT can bring greater levels of interest, motivation and use. For this to happen, personal and institutional barriers need to be understood and then overcome.

3.3 Factors that act as barriers in the use of ICT in teaching

Over the past two decades a considerable amount of international research has been carried out on the barriers that prevent teachers from using ICT but most of these have focused on the compulsory education sector. A barrier can be defined as a circumstance, which is difficult to achieve. There have been a number of attempts made to classify the barriers related to teaching and learning (Ertmer, 1999b; Pelgrum, 2001). Ertmer (1999b) suggests that there are two types of barriers, which hinder teachers' from integrating ICT into their curriculum. First order barriers are 'obstacles that are extrinsic to teachers' (p.50). These include lack of time to plan or to learn to use ICT, lack of access to ICT, lack of training provided to teachers to use ICT and lack of technical support. Ertmer refers to second order barriers as 'obstacles that impede fundamental change of teachers' (p.50) towards ICT. Ertmer believes that these barriers are deeply rooted in teachers' core beliefs about teaching and learning which may not be immediately apparent to others or even to teachers themselves. Second order barriers include lack of vision or rationale for using technology, lack of relevance to teachers, resistance to change and beliefs including cultural issues. However, Pelgrum, (2001) presents a different perspective on barrier classification and refers to them as either 'material' or 'non-material'. Material barriers include insufficient numbers of computers or not enough software programs and the non-material ones being insufficient knowledge of ICT and insufficient time for teachers to use ICT. Returning back to Ertmer's definition of second order barriers, Dede, (1998) and Barton & Hayden (2006) suggests that these barriers are often thought to cause more difficulties then the first order barriers because they are less tangible and also because they are of a personal nature, which are more deeply ingrained, such as teachers' lack of positive attitude and lack of belief that ICT will make any fundamental difference to them or to their work. For this reason

teachers are unwilling to change (Ertmer, 1999b). Cox et al. (1999b), Dawes (2000) and Jones (2004) all suggest that barriers are not isolated but are interrelated and need to be addressed at the same time. In the interest of simplicity these will be discussed below as institutional and personal barriers.

3.3.1 Institutional barriers

These barriers directly relate to the working environment and they are under the control of the organisation. Within an educational setting, these include the ICT infrastructure, ICT resources such as equipment, ICT related software, technical support, management support and as well as staff development opportunities. The following sections discuss some of these.

3.3.1.1 Access to ICT equipment

One of the earliest problems was access to ICT equipment which has been identified as a major barrier in education (Fabry and Higgs, 1997; Cuban et al., 2001). The cost of acquiring ICT equipment has been another factor affecting access as well as the associated costs of purchasing ICT related resources (Cox et al., 1999; Pelgrum, 2001). In addition, there is the challenge of maintaining the technological infrastructure to keep it up to date (Becta, 2004). Access to ICT when and where needed is crucial to promoting its use (PwC 2001). Providing teachers with laptops is seen as an effective means of ensuring access, particularly as this allows greater continuity between work and home (Greene et al., 2002; Almas & Nilsen, 2006). There is still an assumption that simply ensuring access to technology is enough to ensure its effective use in the classroom (Hixton and Buckenmeyer, 2009). Another misconception is that it is reliable.

3.3.1.2 Relying on ICT equipment

We have not yet reached a point where technology can be totally relied upon, as computers and networks break down or the system crashes (Butler and Sellbom, 2002; Such, 2010). Regular breakdowns in education lead to lower levels of usage (Cuban et al., 2001). During this time teachers in the classroom need contingency plans (Sutherland, et al., 2004) which may include reverting back to the whiteboard and marker pens. There is also the issue of obsolete computers (Preston et al., 2000). From 2001 onwards most FE colleges have a maximum speed of 2Mbps Internet connection (Becta, 2004) which is often too slow causing learners may lose patience and focus. A Becta survey 2005 found that colleges were migrating to 4Mbps depending on their traffic flow and some were achieving 10Mbps. Finally, another barrier which researchers often neglect to mention is the constant threat of computer viruses, malware and other destructive software programs that hinder the use of technology and facilitate the possible destruction of data.

3.3.1.3 Issues of appropriate software resources

There are currently hundreds of software applications available for the educational arena. However, a Becta survey in 2005 found that many were not appropriate for classroom use. The same report found that there was little for the post-16 sector so a significant proportion of the e-learning materials were being developed in-house. Poorly designed software often causes teachers to "give up" and choose not to make use of ICT (Guha, 2000) and disengage learners (Bosley and Moon, 2003). Policy makers have promoted ICT based on the view that young people use technology constantly in their personal lives (Cox and Marshall, 2007). They argue that this overlooks the fact that personal use and classroom use are not the same. If the software is not suitable or teachers do not have the appropriate skills, then learners will not experience the same enjoyment. Another problem, which is

hardly ever mentioned in research, is that once one software program has been mastered, another one often replaces it, involving extra costs for the educational establishment.

3.3.1.4 Lack of technical support

Hoyles et al. (1994) argue that collaborative work around ICT needs careful preparation and skilled support. Lack of technical support can create feelings of isolation and prevent teachers from taking on ICT (Russell and Bradley, 1997; Cuban, 1999) making them feel that they have to become technical experts themselves (Lau and Sim, 2008). For ICT to be integrated effectively there must adequate technical support otherwise this may be seen as a further burden on the teachers. Moore (2005) notes that the increasing sophistication of computers and their software means that educational establishments will need to employ more high-skilled technical staff which may put additional costs on already constrained budgets.

3.3.1.5 Lack of flexible and adequate ICT-related training

ICT training plays an important role in helping teachers to understand and use technology. However, if training is the solution then why do we still have the problem? Lack of quality training (Lee, 1997) and providing the time to train (Finlayson et. al., 2006) have been identified as major obstacles but research conducted by Guha (2000) and Cox et al. (1999b) suggests that the training itself may be part of the problem. Appropriate support and training must be seen as essential for the successful use of ICT in teaching and learning (Gillespie, 2006). However, the 'general recipe' approach of one fits all implemented in education is not appropriate as teachers need to be involved in their own learning (James and Biesta, 2007). Trucano (2005) notes, 'Teacher professional development is a process, not an event' (p.38) stressing that traditional one-off sessions are not effective in

integrating ICT and should not be a substitute for planned, on-going professional development.

Trucano (2005) adds that for professional development to be effective, it should mirror the classroom environment as much as possible. In this way teachers' mastery of their subject is then reflected in their mastery of integrating ICT to include specific needs and challenges. This would include the use of hands-on practice where teachers could encourage and support one another. It would involve teachers in discussion, evaluation and the modification of pedagogical practices, making the learning situated resulting in relevant and useful knowledge. However, without a clear understanding of pedagogy teaching and learning will tend to be driven by what technology makes possible, rather than what learners actually need (Laurillard, 2008). In this way learning is authentic making it contextually and socially relevant because people learn from each other, reflect on their own learning, problem solve together, identify and seek out new practices, skills or insights in the specific context in which it is used (Lave and Wenger, 1991). Teachers need to determine their own needs as well as meet organisational needs as part of a constantly evolving process.

Training teachers to use computers and the Internet are simple tasks but using them as an effective teaching and learning tool is not so simple (Livingstone, 2011). John and Sutherland (2005, p412) consider that, "Unless teachers are offered theoretical tools to support their use of ICT in the classroom, they are unlikely to develop approaches to teaching and learning which harness the potential of ICT for enhancing learning." Wild (1996) and Van Fossen (1999) found that training that focuses on basic ICT skills training fails to prepare teachers to integrate ICT in their pedagogy. This is very important as non-

ICT teachers need to be encouraged to reflect on and make decisions about their own ICT development needs on an on-going basis, yet this has been a neglected area (Quicke, 1996). Teachers who were not ICT-literate preferred to be taught basic skills before addressing pedagogical integration of technology (Snoeyink and Ertmer, 2001). These findings seem to suggest that there is a need for differentiated training, which takes into account teachers' different levels of ICT experience and their learning styles (Veen, 1993) otherwise ICT will remain in the shadows of reality rather than an integral part of the teaching process.

3.3.1.6 Lack of management support

There needs to be support through positive leadership, appropriate planning and more importantly direct involvement of teachers (Larner and Timberlake, 1995; Cox et al. 1999a) to implement ICT into the curriculum. Teachers need to know that they are not working in isolation and that help and support are available. The existence of a supportive network of colleagues was found to be a key factor in the take-up of ICT (Cox et al. (1999a). A study which, investigated teachers' experiences of implementing ICT found that where there was effective leadership and networked ICT expertise, implementation was greatly enhanced (Younie, 2006). This is important because teachers are busy individuals; they need to feel that the time spent in developing their new skills and knowledge are then valued by management Although CPD may be desirable, even mandatory under the IfL, teachers are forced to integrate ICT which demands many hours of learning and updating to take account of new technological learning. Trucano (2005) suggests they still require motivational incentives to successfully integrate ICT which could include professional certification, pay increases, promotional change reflecting role and formal recognition among peers.

3.3.1.7 Workplace learning environments

As explained in Chapter one Lucas and Unwin (2009) discuss workforce development with FE. They stress that the role of colleges is primarily to provide a service to learners and as such workforce development is not at the top of their agendas. Lucas and Unwin believe that college managers need to give the same considerations to staff as they do to learners in terms of making learning central to the professional development of staff. This involves accepting that a growing body of knowledge has developed about workplace learning which has direct relevance to the professional lives of teachers. This involves recognising and accepting that learning is a situated social process where colleagues engage with each other. Fuller and Unwin (2004) developed a framework for understanding workplace learning in terms of expansive - restrictive learning environments which either facilitate or restrict learning. Expansive environments are supported by a management style which encourages the creation and sharing of knowledge, acknowledging that the workers are also learners. Expansive environments recognise that individuals vary in the way they engage in learning and that that learning is influenced by personal factors such as level of knowledge, experience and aspirations. These factors lead to a greater fit between personal learning and organisational needs because expansive environments provide opportunities for employee discretion in how and what they learn (Fuller et al., 2007).

3.4 Personal barriers

These barriers can be defined as factors directly relating to the personal views or experiences of individual teachers in integrating ICT. These include lack of knowledge and awareness of ICT, fear, attitude and levels of confidence, resistance to change and lack of time to learn and apply (Underwood et al., 2006).

3.4.1 Lack of ICT-related knowledge, awareness and experience

Research suggests that the lack of ICT related knowledge or skills can create very real problems leaving many teachers frustrated by their limited knowledge (VanFossen, 1999). Simpson et al. (1999) see the lack of experience in using ICT to deliver the curriculum as a serious barrier and teachers will find it extremely difficult to integrate ICT into their learners' learning activities if they themselves have not had that experience. The failure of many teachers to fully integrate ICT in their teaching can come from their lack of understanding about its potential and the opportunities it affords to increase the attainment levels of learners (Stein, 2005). Lack of knowledge and awareness can be seen by the narrow uses of ICT in education (Waite, 2003) as well as the fact teachers have been required to focus on technical skills or software applications, rather than integrating ICT into the teaching and learning process (Tondeur et al., 2007).

3.4.2 Fear, attitude and lack of confidence in using ICT

Preskill (1988) found that the kinds of feelings that teachers have towards computers ranged anywhere from fear of using them to hostility. There were fears of 'computer phobia' with teachers worrying that mistakes could not be rectified (Selwyn, 1997). Research conducted by Larner and Timberlake (1995) found that some teachers worried about using ICT equipment in front of their learners and that these teachers also experienced anxiety because they were unable to make competent use of computers. Many teachers have expressed concerns that the ICT skills of their learners are more advanced than theirs creating additional anxiety and embarrassment, especially leading to perceived fears about the consequent loss of professional status (Dillon, 2004). Lack of confidence among teachers in utilising ICT in delivery has been identified as a major barrier (Tella et al., 2007). This may also explain why Ofsted (2009) reported that 'teachers tended to give more attention to those aspects of ICT where they themselves felt confident' (p. 4) and that

'teachers gave too much emphasis to teaching learners to use particular software applications rather than helping them to acquire genuinely transferable skills' (p. 4). These observations suggest that use of mentors can increase confidence and have a positive effect (Slaouti and Barton, 2007).

The use of technology as an instructional tool depends very much on the teachers' attitude (Marcinkiewicz, 1994; Clark, 2000). Teachers who have a more positive attitude towards using ICT will tend to have a higher level of computer skills and is more likely to use them than those with a negative attitude (Topp et al., 1995). Significant factors in persuading teachers to use ICT include perceived usefulness, perceived ease of use, teachers' attitude towards use and their behavioural intention to use it (Davis et al., 1989). Several other studies also discovered that willingness to use ICT depends heavily not only upon its usability, but upon its perceived usefulness (Cox et al. 1999b; Preston et al. 2000, Yuen and Ma, 2002). The extent to which teachers adopt ICT depends on their beliefs and attitudes about the importance of ICT for learning (Webb and Cox, 2004). Policy approaches to ICT continue failing to take account of the importance of the personal and professional beliefs and values of teachers which impact on its adoption (Hennessy et al., 2005).

3.4.3 Resisting change in using ICT

Resistance to change emerges when there is a threat to something the individual values and when s/he fears that it may be taken away. Others may not like change because they do not fully understand the benefits of the change and may find it difficult to cope with either the pace or the level of the change and thus become resistant. Albaugh (1997) reminds us that teachers are often suspicious of new ideas without proof of their effectiveness and so prevent its integration in the classrooms. More evidence is needed of what actually works in relation to the integration of ICT (Pittard, 2004). Cox et al. (1999b) suggest that some

teachers may not see the need to change their current practice. They also stress that teachers who resisted change were not necessarily rejecting the need to change but lacked the necessary education and understanding and were probably given insufficient opportunities to make sense of technology. According to several writers, for example, Fullan (1993); Hargreaves (1994); King (1995) and Trowler (1998), the heart of any educational change has been the teaching staff rather than any action taken by management. Farmer (1990) reinforces this point stressing that organisations do not make changes; people do. One final point that needs to be taken into account is that given the negative past with which FE teachers have had to contend with, such as lack of status, low pay (Williams, 2003; Cole, 2004) and criticisms from all directions for so long, it will be difficult to bring about positive change in an arena already full of distrust and resentment between management and the teaching staff.

3.4.4 Lack of time to prepare, train and learn

From all the research conducted so far in the use of ICT in education, most authors seem to present time as a definite barrier. Learning new skills in any profession requires time (Fabry and Higgs, 1997). The lack of time available for teachers to update their professional knowledge and skills has become a key feature of many aspects of teacher lives today (Stein, 2005). Time has been long been identified as a key factor for successful learning of ICT (Sheingold and Hadley, 1990; Fisser & Van Geloven, 2001; Hammond et al., 2009). Teachers expend a great deal of energy in preparing accurate ICT materials for use by learners with a range of abilities and complain about the lack of time, which prevented them from exploring other materials for potential use with ICT (Preston et al., 2000). Teachers need more time to learn computer basics (Manternach-Wigans et al., 1999) and to plan how to integrate technology into their lessons (Waite, 2003). Lack of time for

many FE teachers is a major issue given their teaching workloads. Today many FE teachers would protest loudly that they do not have that time.

Cuban et al. (2001) found teachers felt that they needed time to preview web sites, prepare multimedia materials for lessons, and to undertake training. In the same study it was found that this problem did not just apply to those teachers who made little use of ICT. Teachers who were attempting to make full use of the technology in their lessons made similar complaints about having to work longer hours in order to make their ICT use successful. Other research, such as that carried out by Becta (2005) also identified time as a barrier in the use of ICT. Unless the issues related to time are promptly addressed by educational institutions they will remain a major barrier.

3.5 Conclusion

This chapter has explored some of the past and current literature related to the use of ICT in teaching. Some of the most common barriers identified in literature research are presented in appendix A. It has also highlighted that the idealised world of policy makers that ICT can be easily integrated does not match with the reality of educational institutions and their teachers. Many educational institutions, including FE colleges, have not fully understood the full extent of the paradigm shift required to make technology a success. The chapter acknowledges the potential benefits of ICT for learners. However, the chapter raises some important questions that need to be answered before ICT can be used more effectively in education, such as; just how much does the teacher need to know about the use of ICT? Will the teacher develop and produce all the teaching materials themselves or will someone else have that responsibility? How much training is required for lecturers to feel confident in integrating ICT into their teaching? The chapter also draws on the expansive–restrictive

framework to suggest that the work environment may have a role to play in the learning of ICT. Finally, the chapter also identified in some depth the two types of barriers. Firstly there were the institutional barriers: access to ICT equipment, relying on ICT equipment, issues of appropriate software resources, lack of technical support, lack of flexible and adequate ICT-related training, lack of management support and workplace learning environments. Secondly the personal barriers: lack of ICT-related knowledge, awareness and experience, fear, attitude and lack of confidence in using ICT, resisting change in using ICT and the lack of time to prepare, train and learn.

Methodology

CHAPTER 4

> *"Much education today is monumentally ineffective. All too often we are giving young people cut flowers when we should be teaching them to grow their own plants".*
>
> *John W. Gardner (1912-2002)*

http://www.worldofquotes.com/topic/Education/index.html

4.0 Introduction

The problems highlighted in chapter one indicate the academic and technical difficulties experienced by the business Studies teachers in integrating ICT in their teaching and learning. These problems mean that in their desire to master ICT, they ask others who experience the same problems as themselves, leading to a case of 'the blind leading the blind'. This had serious implications for New Labour's agenda to include ICT in the teaching profession, making it imperative to gain a deeper understanding of the issues involved. This study investigated the complexities of integrating ICT in three London colleges. From this point on, the three colleges are referred to as College A, B and C. College A, where I work, provided a useful starting point from which to explore the issues. The other two colleges in the surrounding areas were studied to see if the problems and barriers associated with ICT in College A were unique to this college or part of a wider problem.

As this is a comparative study of three FE colleges - a case study is well suited to this type of educational setting. The case study approach allows insights into complex circumstances and it can be carried out by a single researcher, especially where the researcher is integrally involved in the case (Cohen et al., 2007). This allowed me as a practitioner-researcher to investigate and explore in detail the various strands such as the individual colleges' strategic plans, their ICT/ILT infrastructure, staff access to computers, levels of ICT usage in classrooms and also in the staffrooms by non-ICT teachers. This case study enabled me to look at the staff development provisions for ICT training for non-ICT teachers and also

the level of support provided by the technical staff at each college. As case studies are concerned with providing rich and vivid descriptions of events (Gray, 2004), I used a case study approach which offered me the opportunity to build rapport with individual teachers, technical staff and also the staff development teams at each college to explore in-depth and over time their perceptions and understanding of the use of ICT in their own work environments. In addition, this research provides a unique example of real people in real situations enabling the researcher to understand more clearly the issues and implications involved in the research.

My relationship with the participants was purely professional. I knew many of the participants at College A through work-related activities. I did not know any of the participants in Colleges B and C. Therefore, I had to build rapport by sending out introductory letters to their Heads of Schools and sought permission to conduct the study. I made appointments for the interviews and, due to participants' different timetable constraints, this task proved to be very difficult. A profile of all the participants in this study has been included in appendix B.

The three colleges that were chosen for this study are located in the South London area and the distance between them is approximately 7 to 8 miles from each other. They are similar in size and in the type of course offer. Due to the closeness of these colleges, prospective learners have greater choice. For this reason these colleges are seen to compete for the same learners to ensure their business survival. It is important to note that one of the colleges is linked to sister university which means have access to more funding, resources and expertise. Being a practitioner-researcher working at one of the three colleges it was important to understand if the problems and challenges faced by non-ICT-teachers related to the use of ICT in their teaching and learning in one college were same or different in the other two colleges.

4.1 Theoretical and methodological perspectives

The case study approach draws on the interpretative paradigm (Robson, 2002) and reflects my ontological position that peoples' experiences, views, understandings and interpretations constitute a meaningful social reality, which my research questions are designed to explore. My epistemological position is that a realistic and purposeful way to generate data in this area is to interact with those responsible for delivering, supporting and managing ICT within FE. I have decided on the interpretative approach as it covers many different forms of inquiry that help researchers to understand the meaning of social phenomena (Merriam, 1998). In other words, qualitative researchers are concerned with how individuals make sense of their worlds. Therefore, following the advice of Robson (2002) the data collection methods chosen include semi-structured interviews, questionnaires and institutional documents (Robson, 2002; Matheson and Matheson, 2004) as the main research instruments for this study. The interpretive approach is also useful for exploratory studies where there is little knowledge about a particular subject (Robson, 2002) and it can enhance social interactions to result in more informed understandings (Denzin and Lincoln, 2003). It also offers an excellent way to understand the attitudes, beliefs, feelings and actions of others because it draws on the language of first person accounts to capture how individuals think, work and make choices (Anderson, 2002). It aims to understand what goes on in a given setting (Anderson, 2002), based on everyday life experiences (Denzin and Lincoln, 2003, Ashworth, 2003).

4.2 Ethical issues

As a researcher, I recognize that I am my own moral agent with views, opinions, values and attitudes, which may unconsciously affect my interpretation and analysis. Consequently, I realize that I may face ethical and moral dilemmas (Hitchcock and Hughes, 1995), which may affect the 'production and interpretation of qualitative data' (Denscombe, 1998). One of my main ethical issues was informed consent, which arises from the subject's right to freedom and self-determination. Anderson (2002) and Flick (2007a) believed that the most

fundamental principal for ethical acceptability is that of informed consent not only from the interviewees but also from the institutions included in this study. I was reminded throughout the process of the BERA code of professional conduct for researchers and I have taken the necessary steps to adhere to it.

Diener and Crandall, (1978) considered informed consent to be the procedure in which individuals choose whether to participate in an investigation after being informed of the facts that would be likely to influence their decision. The interview procedures were explained to the participants as well as the benefits of the study. Participants were given ample opportunity to ask any questions concerning the procedures. The participants were made aware that they could withdraw at any time (Burgess et al., 2006) without any negative consequences. I understood that the social context of an interview situation means that the interviewer exercises power over the interviewee not only in setting the questions but also in controlling the interview situation. I felt it was important to ensure the interviewees did not suffer emotional or psychological harm (O'Leary, 2005; Babbie, 2007; Flick, 2007b) or leave the interview humiliated, insecure or lacking in confidence (Cohen et al., 2007). Certain types of information can be regarded as sensitive or confidential by some people and can be seen as an invasion of privacy (Kumar, 2005). This was an important consideration as some of the questions might have left the teachers feeling incompetent in their use of ICT, upset or embarrassed. To avoid any negativity, I endeavoured to empathize and understand the interviewees' experiences and knowledge base, which helped me to approach them in an appropriate manner. I was aware that my experiences and personal beliefs could cause a degree of bias and that caution was needed to avoid these interfering with the hearing of responses and their interpretations.

Given the fact I was interviewing teachers, staff development officers and technical support staff working in the same environment, it was my responsibility to assure them of

anonymity and confidentiality at all stages of the research, as well as taking steps to ensure that individuals could not be identified (Cohen et al., 2007). Falk and Blumenreich (2005) suggested that some people may be suspicious of how they will be perceived or represented by the researcher. Therefore, I explained that I was concerned with the data and not about the identity of individuals. I assured them that at every stage of the research process all identifying features in the writing up and in the dissemination section would be removed (Kvale, 1996).

Anderson (2002) warned that when interviewing powerful people, they may tend to control the agenda and this may present complexities that the novice researcher must take into account both prior to and during the interviews. I acknowledge that those in power are also in difficult positions with regard to the information they volunteer for the public domain and this can impact on the dynamics of the situation. Blaxter et al., (2006) suggested that there should be no stress resulting from the interviews, therefore, a short debriefing session was held to address any concerns that participants may have had. I acknowledge that ethical concerns present themselves at dissemination stage. Therefore, due care has been taken in the wording of the final chapters in this thesis to avoid individuals being identified and possibly viewed negatively as a result of their honesty in discussing their experiences, opinions and fears.

4.3 Data collection methods

I have used semi-structured interview as the main data collection method because it is a powerful way of understanding the experiences of others, to investigate different participants' viewpoints and to enrich the findings (Flick, 2006; 2007a). However, semi-structured interviews may only provide a partial view of the research; therefore, I decided to use a questionnaire and documentary evidence as additional data collection methods because according to Cohen et al. (2007) the more data collection methods contrast with each other, the greater the researcher's confidence. In addition, the use of more than one

method increases validity and reliability (Hammersley, 1987; Cosley and Lury, 1987; Cresswell, 1994; 2009).

This is not to say that one method is inferior to the other but I felt that due to the busy work schedule of FE lecturers involved in this research and the time constraints of the interviews (45 to 60 minutes for each interview) a questionnaire was considered the best way to collect additional information to avoid inappropriate use of interview time. The questionnaire was sent to every participant to complete in their own time and later be returned to me. It was intended to capture factual information and data based on the different software and hardware participants used in their everyday practice. The questionnaire also provided a list of different hardware and software related equipment usage and the amount of ICT related training received. This questionnaire was also intended to avoid participants feeling pressured into providing instant answers and meant that they were able to recollect and reflect on their experiences. The addition of the questionnaire also provided a further opportunity to collect statistical related data which contributed to obtaining a fuller picture of the situation.

The following table shows the data collection methods that were employed for each research question.

Research questions	Data collection Method
How have national policies contributed to the promotion of ICT in an FE teaching environment?	• Semi-structured interviews • Documentary evidence
What has been the contribution of policy agencies in supporting the development of non-ICT FE teachers to use ICT in their teaching?	• Semi-structured interviews • Documentary evidence
What training and continuing professional development opportunities exist to enable non-ICT teachers to integrate ICT?	• Semi-structured interviews • Questionnaires
What are the benefits and barriers faced by non-ICT teaching staff at three London FE colleges in using ICT in teaching?	• Semi-structured interviews • Questionnaires • Documentary evidence

Table 1 - Methods for data collection for each research question

4.3.1 *Interview schedule*

Across the three colleges a total of 31 non-ICT teachers were interviewed together with three staff development officers, nine technical support staff. In addition I interviewed three spokespersons from three different policy agencies. In total 46 interviews were carried out over a five-month period during 2008-2009. The interview schedule at appendix C provides further information about all those involved in the study and appendix D contains the interview questions for non-ICT teachers, staff development officers, technical support staff and policy agencies.

Many of the interview questions initially came from remarks from non-ICT teachers in my college. The questions were related to the use of ICT, the equipment associated with it, their training needs, support and incentives they received related to ICT training. Some questions also came from the role and responsibilities of staff development officers and technical support staff in supporting non-technical teachers. Other questions also came from my personal observations as teachers struggled with the many problems they experienced. In addition, the technical support staff seemed annoyed when they were called to deal with ICT-related issues and had to face angry and frustrated staff. These matters became important areas to explore in the interviews, especially when considered in the context of government policy intentions to promote ICT. Therefore, these factors along with the review of the research literature on ICT provided the basis for the interview questions.

4.3.2 *Semi-structured interviews*

According to Hitchcock and Hughes, (1995) the semi-structured interview is particularly useful in educational settings as it allows the exploration of depth to be achieved. It also permits the interviewees to develop ideas and speak more widely on the issues raised (Denscombe, 2007). Another advantage is that it enables the interviewer to probe and expand the interviewees' responses so that the interview flows like a normal conversation

but with a purpose (Kvale, 1996). The majority of the interviews in this study were carried out face-to-face. Burgess et al., (2006) have stressed the importance of making the participants feel comfortable and relaxed in order to reveal more on the topic under study. Therefore, I sought to build rapport, negotiation, discussion and clarification of the interviewees' responses. O'Leary (2005) warned that interviewing is a complicated process where three tasks are being carried out - questioning, prompting and probing. She further noted that it requires the researcher to listen actively and make sense of what the interviewees are saying. I found these types of interviews very useful in motivating the teachers to discuss their perceptions and experiences of integrating ICT into their teaching. Table 2 shows the total number of interviews carried out at each college. These include thirty-one non-ICT teachers, three staff development officers and nine technical support staff.

	College A	College B	College C
Non-ICT teachers	13	8	10
Staff development officers	1	1	1
Technical support staff	3	3	3

Table 2 **Interviews in the three case study colleges**

Although the semi-structured interviews were an extremely valuable method of data collection, it did not however allow for the variety or the number of software that teachers used in their teaching and learning. This would required an additional data collection method such as a questionnaire which would help to identify a list of software programs that teachers used, were trained on or experienced. The questionnaire would also allow the interviewees adequate time to reflect on the answers rather than provide a brief or incomplete answer to the question related to software usage during interviews.

4.3.3 Telephone interviews

Blaxter et al., (2006) warned that sometimes interviewees many not be able to keep the original agreed interview and an alternative strategy needs to be considered. In such a situation, Purdon and Thomas (1994) considered that telephone surveys are just as successful as face-to-face interviews. Therefore, I felt confident in using this method. Bryman (2004) advised that rapport may be more difficult to achieve using this method. Consequently, I made telephone contact with the prospective interviewees and discussed the importance of the research, which helped me to build rapport with them. Appointments were made and we agreed on a time and date of the telephone interview just as I had done with the face-to-face interviewees. I also informed them that the interview would be recorded and gave an indication of its duration. However, some interviews were interrupted midway due to participants being at home with family members. Therefore, the interviews had to be rescheduled for another time.

The questions were kept short and to the point for fear that interviewers might lose their concentration span or might not remember long questions. According to Bryman (2004) telephone interviewing has the advantage, which is that the interviewees cannot see the characteristics of the interviewer such as race, class, or even by their presence. The remoteness of the interviewer in this type of interview removes the potential source of bias created by the presence of the interviewer. I found this to be true as I felt that some of the participants were particularly comfortable as they could not see me and spoke more freely. I found almost all of the participants were receptive and willing to answer questions. In most cases the telephone interviews were considerably shorter than the semi-structured interviews. This could be because there was less opportunity to deviate from the topics under discussion.

Bryman (2004) warned that with telephone interviews the interviewer cannot pick up on signs of puzzlement, unease or misunderstanding of questions, whereas in a face-to-face

interview, he/she may be able to respond to such signs by restating the question or clarifying the meaning. I took the precaution of listening very carefully and especially listened for verbal cues such as pauses and hesitations, which helped me to ask questions or clarify points.

4.3.4 Recording the interviews

Tape-recording interviews no doubt presents the most complete version of what had been discussed. However, the negative side of recording is that they capture speech, but miss non-verbal communication and other contextual factors. I acknowledge that taking notes during the interview can be distracting for the interviewer and for the participants. It is possible to miss the crucial comments made by the interviewees. Mason (2002) suggested that notes should be taken as the recording does not allow for facial expressions or use of body language during their interviews. Therefore, in an attempt to compromise between these positions, I took brief notes during the recorded interviews. All the participants were contacted beforehand and permission sought from each individual regarding the interviews being recorded. Those who were available for interviews either face-to-face or on the telephone had no objection to being recorded. The recordings allowed repeated examinations of the interviewees' responses. All the interviews were transcribed so as to capture the various themes and patterns. Due care was taken when transcribing the interviews to avoid misrepresentation of the interviewees responses. I was also aware that the tape recorder may impose a degree of formality that may interfere with the communication flow (Hitchcock and Hughes, 1995). Initially, interviewees can feel inhibited by the process of recording, but I was aware that most of the participants became relaxed after a short time (Denscombe, 2007). A short debriefing session was carried out at the end of each interview to seek further clarification (Blaxter et al., 2006) and I managed to address any concerns that the participants might have had. Participants were given the

opportunity to verify their transcript but most gave a brief glace and agreed to its authenticity. A sample of the interview transcripts has been included in appendix E.

4.3.5 Questionnaires

The questionnaire (appendix F) was designed to collect additional information about the possible range of software that participants used in their teaching and learning. It also helped to identify additional barriers faced by non-ICT teachers, to explore their level of knowledge of ICT and what support they would like to help them to use ICT more frequently. As soon as the face-to-face interviews were completed, the questionnaire was given to the participants to complete in their own time to be returned later. Each questionnaire was coded with the intention to identify the respondents. Those participants who were part of the telephone interviews were sent the questionnaire with a stamped-addressed envelope and I also did a follow up phone call to thank them for their participation and asked for a prompt return of the questionnaires.

Distributing the questionnaire in this way allowed them time to reflect and respond rather than having to think during the interview of a list of software that they used which would have made the interviews last longer. I used the questionnaire to support the interviews and I appreciated that during the interviews not everyone would be able to remember accurate details of the software they used when they were under the pressure of questioning. Bryman (2004) stressed that there are a number of disadvantages of self-completion questionnaires such as there is no one present to help if they are having difficulty in answering a question so I ensured that the questionnaire was user friendly. Based on this observation, I tried to make the questions as clear and unambiguous as possible and endeavoured to make the questionnaire attractive and easy to use. Without the support of the questionnaire this research would have been flawed as it would not provide a full picture of the areas under exploration.

Although there are many type of questionnaires used in educational research, I used the semi-structured form and kept it fairly short as suggested by Bryman (2004), as this would increase the response and completion rate. Some of the questions on the questionnaire had a comment-on section where the participants had the opportunity to answer the questions in a blank box and write a short response. Other questions provided possible answers, which they were required to select. I was hopeful that this format would provide an in-depth understanding of the participants' responses. All 31 questionnaires were returned.

4.3.6 Documentary evidence

While the main aim of the study was to collect primary data, secondary data were also of significant value. Documentation was chosen in order to increase validity and reliability. Many of the documents identified from the three colleges gave indications as to the type of questions that required further exploration and they also provided a starting point for many of the areas of the interview questions and also the questionnaire. I understood that documents, whatever their nature, cannot be taken at face value as they frequently offer an artificial and partial account, which need to be critically assessed for research purposes (Blaxter et. al, 2006). Moreover, Mason (2002) warned that there was always an over-emphasis on the inherent credibility of documentary data with the implication that texts have a superior, concrete and indisputable quality. This is especially true of documents deriving from the state because these provide a particular political viewpoint or have a unique quasi-official character (Bryman, 2004). Policy documents emanating from the policy makers, policy agencies, FE colleges and FE inspectors were chosen as they provided a rich source of data for the interviews and the questionnaire. All these types of documents helped me contextualise the findings. Table 3 shows the specific type of documents used in this study.

Source of documents	Type of documents	Why selected?
3 Colleges under study	♦ Strategic plan. ♦ ICT policy. ♦ Staff training documents.	♦ How the 3 colleges interpret and address ICT training. ♦ ICT Infrastructure ♦ Evidence based funding.
Ofsted	♦ Inspection reports of the three colleges. ♦ Publications related to use of ICT in education.	♦ Independent view matched against government initiatives.
Policy agencies	♦ Own research documents. ♦ General publications regarding use of ICT in education.	♦ How far agencies support FE & teachers in developing use of ICT in teaching and learning? ♦ Role of agencies.
Government	♦ Policies related to education and ICT. ♦ White and green papers. ♦ General publications regarding use of ICT in education.	♦ Promotional text ♦ Policy intentions. ♦ Government commitments. ♦ Policy outcomes.
Journals & books	♦ Evidenced based research on ICT and education.	♦ Contribution to new knowledge base. ♦ Views of other researchers

Table 3 – **Research documents**

The above documents were used to develop a better understanding of policies, policy agencies and also the three colleges under study. These official publications were used to compare views and actions the text intended (Prior, 2011) with the views and actions expressed by FE staff in the three colleges. The documents also used to identify how far theory matched practice about New Labour's vision to integrate ICT into teaching and learning in FE. The journal articles provided further evidence on the use of ICT in other educational areas.

4.4 Sampling strategy

Non - probability sampling or purposive sampling as it is sometimes called was chosen because it was the intention to only look at the non-ICT lecturers in the Faculty of Business Studies at the three colleges. This type of sampling seeks to represent a particular group and does not generalise about the wider population (Babbie, 2007). I was aware that sampling was determined by several factors such as the size of the study (Flick, 2007b), the numbers of participants available and the richness of the data (Smith and Osborn, 2003).

Non – probability sampling is particularly suitable for small-scale case study research (Schutt, 2006; Burgess et al., 2006). The sample represented all the non-ICT lecturers in the School of Business Studies in the three colleges.

4.5 Pilot study

Denzin and Lincoln, (2003) have stressed that a pilot study allows the researcher to focus on particular areas that may have been unclear previously and Oppenheim, (1992) suggested carrying out a small study first to increase reliability and practicality. The questionnaire and the interview questions for non-ICT teachers were piloted in another School within College A. Four non-ICT teachers were selected and this helped to throw up any ambiguities. The pilot study further helped to define my research interview questions and determine if the wording or order of the questions needed to be added or removed. This process helped me to identify and clarify potential problems with a view to increasing validity (Oppenheim, 1992) and avoiding researcher bias (Matheson and Matheson, 2004). It also enabled me to see if the questions allowed sufficient probing and whether useful information could be gathered. As a result, some interview questions were reordered to produce a more logical flow. I found that some questions did not provide a useful response and for this reason I decided to make that particular question open ended as to allow the interviewee some freedom to voice their opinions and concerns. Other questions were modified to make them clearer and easier to understand. This was done by making the questions shorter and to the point. The pilot study also offered the opportunity to see how long the interview would take which confirmed my original decision to develop a questionnaire to avoid the interview becoming too long. The questionnaire was also piloted to check if the layout was attractive and easy to understand. The staff were asked for their comments in the ease of use and for this reason the questionnaire went through several drafts to simplify its completion. The changes included the style and wording and these were incorporated in the final design.

4.6 Research timeline

As new technologies are evolving and entering the educational area, the author feels it is important to define the precise time in which this study and more importantly the interviews were carried out. It covers the activities and the amount of time dedicated to each stage of development.

Stage One **Literature review and documentary evidence**

- Searched through the various electronic catalogues of journals at the Institute of Education website using key words related to the research.
- The Internet was used to search for other related articles. These articles included those from policy agencies and other ICT-related research institutions.
- Policy documents were sought via the Internet and through government offices.
- Examination and analysis of documents from the three colleges such as the Strategic plan, ILT strategy, Staff development plans, and Ofsted Inspection reports

Timeline: This stage lasted throughout the study from start (November 2007) to completion (June 2009).

Stage Two **Planning and designing**

- This stage involved the designing of the interviews and questionnaires.
- Participants were identified
- Invitation letters to take part in the study were sent out.
- Sample decided
- Pilot study carried out.
- The questionnaire and interview questions were changed and updated due to problems (inappropriate questions, closed rather than open ended questions, did not achieve an appropriate response, etc.) encountered during the pilot study.

Timeline: November 2007 to March 2008.

Stage Three **Interviews and questionnaires**

- Interviews with non-ICT teachers were carried out at all three colleges.
- Questionnaires were given out to the participants.
- Non-responsive participants were identified and were written to again to take part in the study.
- Transcripts were prepared from the recorded interviews.

Timeline: April 2008 to June 2009. (In July 2008 the three colleges under study were closed or the participants were on holidays. For this reason the interviews were resumed in September 2008).

Stage Four **Analysis and writing up**

- Transcripts were analysed and coded.
- Questionnaires were analysed
- Start of writing up the findings.
- Complete writing up.

Timeline: January 2008 to September 2010. (The first five chapters were started from March 2008 and the data analysis was started in September 2008 and continued until the writing up was completed in September 2010).

Diagram 3: Research Timeline

4.7 Gaining Access

Establishing contact with key people in any organization under study is important (Maykut and Morehouse, 1996), as is the permission to speak to key participants. First, I identified the key individuals or gatekeepers (Blaxter et al., 2006; Flick, 2007b) within each FE College. Initial contact was made either via telephone or email to the Heads of School for an appointment. I then followed up with a meeting in which the Heads identified all the Business teachers and the contact details. This enabled me to contact the individuals concerned by email (covering letter – appendix G) to outline the aims of the research, its importance and to set up appointments for interviews. Some of the participants wanted to see the interview questions prior to the interview, which I sent to them via email. I then approached all the Head of Schools and sought their consent to carry out the research. It is important to note that initially a small number of people did refuse to take part in the study. However, when I explained that their other colleagues were already involved in the study, they then agreed to participate.

To my cost I learnt that gaining access does not automatically mean that the interviews will take place. Often I had to re-negotiate the date, time and venue because participants were

unable to keep to the set appointments. Bryman (2004) suggested that gaining access is an on-going activity. This provided me with the reassurance that I needed to carry on. There were occasions where some interviewees were suspicions of my study and that my findings may end up with their management. However, I managed to assure them that this would not be the case. Bryman also pointed out that those who are suspicious could in fact sabotage the study by engaging in deception and misinformation. I took this into account and was aware that these members of staff may claim to have a better command of ICT and its usage than is actually was the case.

As an insider researcher I understand that there are certain issues that need to be considered. I was careful not to take advantage of a situation that would affect my data or influence anyone in their views. Shamim (1993) cited in Holliday (2007 p.148) discussing the role of an insider as an outsider, pointed out that as an insider it does not automatically mean that cooperation from your peers will be given freely as they may fear that one's role as a researcher will highlight their shortcomings despite reassurances to the contrary. Bearing this in mind, I made every effort to ensure my participants that as an insider researcher, I played the role of a supportive colleague first and researcher second to address their concerns. As an outsider researcher, I was aware of the protocols involved in each college and work environment and therefore approached the situation with caution. Often, gaining access to college documents was rather difficult but after some repeated negotiations, access was granted. It is also important to note that sensitive data related to the individual colleges were intentionally omitted before handing them over to me.

4.8 Data coding and analysis

Punch (2005) emphasised that in qualitative data there is no single way of doing data analysis. He also points out that much depends on the purpose of the research. This viewpoint provided a sense of comfort because it enabled me to exercise flexibility. I started the analysis by examining the data that had been collected, then carefully

transcribed all the interviews looking for categories within the main topics while allowing interesting or conflicting issues to emerge. Data reduction and selection are important factors in data analysis. Consequently, the method needs to be systematic, disciplined and transparent (Punch, 2005). Miles and Huberman, (1994) suggested a three-stem coding process. My initial step involved sorting out categories and then colour coding these. The second step involved sorting the data and cross checking the interview transcripts to establish themes and patterns across the interview data. The third step involved the interpretation of patterns and considered the connections between them. Therefore, every script was checked line by line in a systematic way, a descriptive code was written by the side of each piece of datum to ensure clarity. The process was done manually as I felt it would give a closer connection to the data and provide space for reflection.

Huberman and Miles (1998; Neuman, 2003) suggested that the coding label should bear sufficient resemblance to the original data so that the researcher can know what to look for. I endeavoured to keep to this format as this enabled me to group together and locate topics and subject areas. Later, the codes were further simplified by rearranging them in numerical order to help locate the relevant data in the transcript. Therefore, after reading the transcripts a number of times I stayed close to the topics and categories in the transcripts, focusing on the data that directly related to the research (Boulton and Hammersley, 1998). The analysis involved organising, making sense of the data in terms of establishing categories, patterns and themes emerging from the responses. I also followed the advice of Holliday (2007) that themes represent the necessary dialogue between data and researcher and help to further make sense of the data, which then provides a structure for writing. I looked not only for descriptions of the interviewees' attitudes, beliefs, and values (Boulton and Hammersley, 1998) but also their perceptions of their individual colleges' practices and government thinking. I was reminded of what Denscombe (2007) suggested that talk is not always easy to hear even if it is recorded. It is true that some

people do not always speak in clear sentences and will jump from topic to topic. Denscombe (2007) argued that the researcher will need to add structure and punctuation and so on to make the talk clear but this requires time. I made every effort that bias did not intrude on the data analysis. I remained true to the interviewees and added nothing which might distort what they were actually saying.

4.9 Researcher effect

It is necessary to acknowledge that researcher effect is of significant importance in researcher-practitioner situations when one is using qualitative research. I was aware that the first question of the interview would have a significant impact on the rest of the interview and that the question should offer the interviewee the chance to settle down and relax. For this reason I started off with an easy question. I followed the advice of Hitchcock and Hughes (1991) who stated that in qualitative research it is sometimes necessary to take account of the fact that the researcher will exert some influence on the interviews as well as on the findings. Gilbert (1997) and Denscombe (2007) suggested that during interviewing people respond differently depending on how they perceive the person asking the questions. I made every effort to be polite, receptive and neutral in order to encourage the right climate for an interviewee to feel comfortable and provide honest answers. I was aware that power relations exist and have the potential to influence some subjects more than others (Patton, 1990; Clarke and Dawson, 1999), I therefore adopted the advice of Keats (2001) on interviewing, who argued that I should have a style of dress to remove the element of threat and facilitate dialogue. During the interviews I used the participants' own words to probe in order to empower them and to make them feel valued about their opinions. As researcher, I was aware of the effect of body language in indicating interest, encouraging the interviewees to talk and maintain a non-threatening posture and atmosphere. This is because body language acts as non-verbal cues. I often looked at the interviewees' posture to ask the next question or prompt them for more information. I

observed the interviewees' position of sitting and was concerned if they were comfortable or not. I have been guided by the work of Bhopal (2000) to position myself so that the interview does not appear hierarchal or manipulative. I adopted an informal style and tone to encourage a conservational, free-flowing exchange of ideas and information. I also realised that my culture, race and religious background may align me with some interviewees more than others, but I felt that by adopting a sensitive approach this would enable me to gain an in-depth understanding of the ICT-related and policy issues by sharing something of my own ICT background and experience.

4.9 Validity and reliability

From an ethical standpoint validity and reliability are important issues in research. Validity usually refers to the extent to which the methods and results address the research questions. Whereas, reliability refers to the view that if the data collection procedures were to be repeated by another researcher; they would produce the same or similar findings (Ritchie and Lewis, 2003). In interpretative research, these are usually more difficult to address so as a broader view is taken to create a credible, honest and trustworthy account of the research process (Perakyla, 2009) burgess et al. (2006 considered that reliability in interpretative research is concerned with the precision and accuracy of procedures to show that a logical order was followed. Therefore, I tried to ensure careful design and planning in the early stages and also later at the implementation stage to apply rigour throughout. I documented the steps in the data collection process to produce a chain of evidence that traced the different stages. In addition, I gave due attention to detail and accuracy by adopting the advice offered by Fielding (1996) to maintain meticulous records, sources of information used, taking notes of all communication and reflective thinking. In terms of interviewing Oppenheim (1992) warned that semi-structured interviews is more difficult to achieve because context emphasis and changes in wording vary from participant to participant even over short periods of time. As there is no absolute way to verify what

someone tells us about their thoughts and feelings. The emphasis must be on trying to ensure consistency throughout.

Silverman (2001) suggested that all the interviewees must understand the questions in the same way. I felt this was achieved through the pilot study and due care was exercised in the actual interviews. I have also taken into consideration problems associated with conducting telephone interviews such as both the interviewer and interviewees having to rely on auditory and sensory cues. I listened to all the interview recordings again and compared them with the previous transcripts to ensure that all the words spoken by the participants were accurate. I also was aware that bias can affect validity so that people at different levels across the college were interviewed to get a more representative view. I accept that those holding senior positions may present the official view so I took this consideration when listening to less influential people such as academic staff including part-timers. Interviewees were given the opportunity to view their transcripts to ensure that the information was a true representation of their views.

For Anderson (2002) validity in interpretative research comes from the fact that people know themselves best and can describe, interpret and talk about their own environment using their own words to produce richness and depth. Hammersley and Atkinson (1983) have supported this view, arguing that validity is attached to accounts through the meanings that subjects give to the data. Hitchcock and Hughes (1991) considered that validity in interpretative research is about the extent to which the data collected represent an accurate picture of what is being studied. For Cohen et al., (2007) validity can be addressed through the honesty, depth, richness and the objectivity of the researcher. Therefore, to ensure validity careful analysis of the interviews was carried out to produce an honest account of the findings. During the interviews I ensured that what the interviewees said was written exactly as they said it. This included their emphasis on

certain words and also their facial expressions were taken into account. I have also tried to strike a balance between engaging in the study, maintaining objectivity in the analysis, reporting the interviewees' views and words accurately and presentation of the findings. Quotes of the participants were used to authenticate their views.

I have integrated the findings with literature to ensure that this study provided a balanced view and to show how the study fits into current and new knowledge of established research in the field. Here, I am able to argue or agree with research done by others to identify gaps or add to existing knowledge related to the study.

4.10 Problems encountered during this study

4.10.1 Due to the nature of teaching such as teachers' busy schedules and timetable differences, it was often difficult to obtain a firm commitment for an interview. More than one-third of teachers in the study failed to keep their interview appointments. These had to be re-scheduled for another day and time. Some teachers failed to keep the second appointment. As some of the participants worked part-time, the author had to wait until they returned on site. Despite the promise of a firm appointment, many did not turn up. However, participants in policy agencies were very professional. They kept their appointments. Through sheer continuous commitment on my part, all the sample of all three colleges' business studies teaching staff was eventually interviewed.

4.10.2 Another problem encountered, which related to the first point, was the amount of timed wasted in waiting for people. This study would have been completed at least four months earlier if it were not for some members of staff in the three colleges and of course the holiday breaks.

4.10.3 Sending out emails to participants related to interviews or for further clarification proved to be unfruitful. Many teachers did not reply to the emails. A face-to-face approach was required. The reasons given for non-reply were mainly related to busy work schedules.

5.0 Conclusion

In this chapter, the research methodology for this study has been discussed in some detail. It also addresses the author's ontological and epistemological position related to this study. It further describes the data collection employed and provides clear details of the triangulation methods used. It provides a clear diagram of the time line during which the research was carried out and identifies the sources and types of documents used in the study. It also addressed ethical issues, sampling strategy, pilot study, gaining access to participants, data coding and data analysis. This chapter has discusses the importance of addressing, such as researcher effect, validity and reliability. Finally, the chapter discussed some of the problems encountered in completing this study.

Background to the three colleges under study

CHAPTER 5

> *". . . if they are to survive in this chaotic environment, leaders must develop the skills they need to lead effectively no matter how fast the world around them is changing."*
>
> Michael Fullan, (2001).

5.0 Introduction

This chapter provides a factual statement and a brief background of the three colleges under study. This study is focuses on the Schools of Business Studies within the three colleges. For the purpose of this research the names of the colleges have been removed, so as to conceal their identity. However, the information discussed below for each of the colleges should provide enough information to understand the institutional context and their commitment to providing young people and adults with education and training. I have used previous Ofsted inspection reports of the colleges under study, each colleges' website and prospectus and finally, personal observations of the three colleges to provide the background information for this chapter.

All three schools offer a similar range of programmes for 16-19 year olds and also provide courses for students 19 + in Business administration, business studies, Access and higher education. Many of the teaching staff work across the provision. Like other FE colleges in England, these three colleges are autonomous organisations operating under the direction of a governing body and, during my study, were mainly funded by the Learning and Skills Council, which at that time had overall responsibility for funding and planning post-16 and adult education and training.

5.2 Background of the three colleges

College: A

This is one of the largest FE colleges in London. The college is located in a busy business and residential area. There are a number of secondary schools, but as there is no other FE

college within a six-mile radius; College A has no direct competition for students. The college's turnover is around £17 million a year and at present it is in a stable financial position. However, it is important to note that this college was in fact in deficit for a number of years. It achieved a financial lifeline by selling off some of its assets, such as other centres to property developers.

5.2.1 Teaching staff

This College currently operates from four main centres. It has over 200 teaching staff, 250 support staff and 30 management staff. The College is managed at the senior level by the Principal and an Executive Team, which consist of a Vice-Principal and four directors. The School of Business Studies currently has nine full-time and four part-time teaching staff. All students at the College have an email account, which they can use to contact teachers and other students, as well as have access to the college's virtual learning environments to access information related to their studies or upload their assignments.

5.2.2 IT Infrastructure

Like most FE colleges, this organisation has invested in an IT infrastructure and has an Information Learning Technology (ILT) strategy concerning the use of technology to enhance teaching and learning. In the early part of 2007/8 new Interactive White Boards (IWB) were installed in most classrooms and some of the computers in the classrooms were also updated. Recently all the full-time teachers were given a PC of their own, but the part-timers have to share their PCs. Access to laptops is only offered by booking one week in advance. According to these teachers there are still many classrooms, which depend on 'old technology', such as overhead projectors and transparencies. Most students have access to the college Virtual Learning Environment (VLE) and this will be updated soon.

5.2.3 Staff development provisions

Staff development in College A is going through major restructuring with the intention of making a number of changes with regard to the way staff development courses are delivered. The College is investing in new computers and also training-related software programs. It has also made contact with Ferl[13] to develop staff ICT-related training programmes.

5.2.4 Technical support

There is a total of six full-time and three part-time technical support staff looking after the three centres. The site where the School of Business is situated only has three of them. The college has six ILT/ICT Champions distributed among the three sites.

5.3 College: B

This College is located in a leafy suburb. In 1962 from being a Technical College, it was split into the present College of Further Education and the other part went on to become a well-known University: the two institutions continue to have strong links with each other. The mission statement of this college suggests that it aims to provide high quality and best value education and training.

5.3.1 Teaching staff

This College currently operates from a single site, which is close to its sister university. The School of Business Studies offers a variety of business, administration and foundation degree courses and currently it has six full-time and two part-time teaching staff.

5.3.2 IT Infrastructure

This College has made significant investments in its IT infrastructure and also has an ILT strategy in place to use technology in teaching and learning. Both students and teachers

[13] Ferl is an information service for all staff working within the Post Compulsory Education sector. Ferl is funded by the Learning and Skills Council and managed by Becta. The Training programme offered by Ferl relates to skills essential for harnessing the potential of ILT in teaching and learning.

have access to a wide variety of ILT-based resources; these include Blackboard, Blogs, Wikis and other learning environments. The College also has a good website and an up-to-date Learning Resources Centre used by both teachers and students. As this is a fairly small college, the senior management team is able to invest in the latest technologies more readily than the other colleges in this study. All students at the College have an email account, which they can use to contact teachers and other students, as well as have access to the College Virtual Learning Environment (VLE) system.

5.3.3 Staff development provisions

According to its ILT Policy statement this College sees the staff as valuable assets and thus invests in training, support and development. The Professional Development Policy seeks to support this ideal by identifying the meaning and benefits of professional development for the College; outlining key groups of staff who have the greatest needs for professional development; and setting out key objectives for it.

5.3.4 Technical support

This College has eight members of technical support staff who work closely with their parent university, so technical support is widely available. This College also claims that it has a number of ILT/ICT Champions and their people were seen positively by those interviewed. The College operates a VLE known as Blackboard, which is widely used by both teachers and students.

5.4 College: C

This is another one of the largest FE colleges in London. The College is located in a residential area where there are few local businesses. This College mainly caters for the local community and students from other local boroughs rarely enrol here. It has three main sites. The financial status of the College is very stable and inspection grades have always been positive. Its mission statement aims to inspire learners to achieve excellence.

5.4.1 Teaching staff

This College operates from three main centres. It is managed at the senior level by the Principal and an Executive Team, which consist of a number of Vice Principals and four directors. The School of Business Studies currently has seven full-time and three part-time teaching staff.

5.4.2 IT Infrastructure

This college has an excellent IT infrastructure and has an ILT strategy in place to use technology to aid teaching and learning. The College has more than 600 computers available for students in the classrooms and in the learning centres. Most teachers also have their own computers, rarely having to share unless they are part-time. Almost every teaching room has been fitted with the latest technology in their computers, projectors and interactive whiteboards. This College also provides two web-based information and communication resources for staff and students. The students have access to the student web which provides many online services. Students can access the student web from any online PC within the College and from any online machine outside the College. Staff and students also have access to the Moodle virtual learning environment. This learning tool provides course and support information and has the potential for students to communicate with their teachers and vice versa. All students at the College have an email account, which they can use to contact teachers and has access to the VLE.

5.4.3 Staff development provision

The staff development provision is praised by most staff who work in College C. A yearly development calendar is prepared in advance and is available to all members of staff to book their training. The staff development directory lists all courses available throughout the year. Staff receive regular reminders with regard to all mandatory training requirements on the staff web and also on the VLE.

5.4.4 Technical support

There is a total of 12 technical support staff working across three sites. Most classrooms have a telephone and at the first sign of any technical problems the technical support people can be called. According to the notice in the classrooms all the technical faults are logged by teaching staff and these are checked regularly by technical support.

5.5 Courses delivered at the School of Business Studies at the three colleges

All Three schools deliver a wide range of business-related courses (See table 5).

Subjects	Colleges
Business Administration	**A, C**
Business Studies Level 1 - 3	**A, B, C**
Secretarial studies	**A, C**
HND Business	**A, B**
Management Studies	**A, C**
Access to Business	**A, B, C**
Law	**A**
'A' Level Business Studies	**B**
Business & Finance	**A, B, C**
Foundation Degrees in Business	**A, B, C**
Retail	**B**
Accountancy	**A**
Other Business-related courses	**B, C**

Table 4: **Business related courses available at the three colleges**

According to the three colleges' Ofsted inspection Report of 2009, in the past two years, College A and B have been busy trying to improve the provision for the 16-19 age range. Their business-related courses have been reviewed due to poor student retention and achievement. However, College C's retention and achievement for 16–19 year olds is even lower than the other two colleges. This is reflected by the 2009 Ofsted inspection report where the whole College including the Business School, achieved a grade 4. The majority of the 16–19 year olds are on vocational Business courses in all three colleges.

5.6 Conclusion

In this chapter we have seen that all three colleges are committed to government initiatives to increase the use and integration of ICT into their teaching and learning. They all have a strategic plan, which includes updating their current facilities, such as computer systems.

They also perceive an obligation to provide continuous professional development, which includes ICT. Chapters 6, 7 and 8 discusses the views of staff development officers, technical support staff and more importantly the perceptions of the non-ICT teachers when using ICT in their work environment at these three colleges.

Findings and discussion:
Policy and practice to support FE teachers in their use of ICT

CHAPTER 6

> *"Teachers must regard every imperfection in the pupils not as a defect but as a deficit in his or her own instruction and endeavour to develop... the ability to discover a new method of teaching".*
>
> **Leo Tolstoy**, (1828–1910)
> [Russian novelist, Educational Reformer and Philosopher]

6.0 Introduction

This chapter explores two of the four questions set out in this study. The first question relating to the contribution national polices have made to promoting the use of ICT in FE was highlighted in Chapter 1. This chapter presents the findings related to two research questions and discusses their impact in the three Colleges under study. This chapter then addresses the second question, exploring the work of the national policy agencies to support the development of non-ICT teachers to integrate ICT in their teaching. The findings also offer insights into the role and concerns of the Staff Development Officers (SDO), the ILT (Information Learning Technology) managers and the technical support staff (TSS) in the School of Business in the three Colleges.

6.1 Question 1: How have national policies contributed to the promotion of ICT in an FE teaching environment?

6.2 New Labour's ICT-related promotional documents

Chapter 1 outlined the economic and political importance of promoting ICT in education to ensure that the UK remains competitive in the global market. New Labour wanted the FE sector to play a vital role in training the workforce of the future. For example, in the *Colleges of Excellence and Innovation* document, Blunkett (2000) stated, 'Further education is at the heart of the revival in learning that we are witnessing in this country. Our colleges have been a dynamic force, driving economic renewal and social cohesion' (p.28) and that 'ICT will be a key aid in delivering learning' (p.28). In the same document he made it clear that FE 'must realize the full potential of ICT' (p.5). In order for the integration to take place, New Labour wanted FE to take a lead role. In *Colleges of*

Excellence and Innovation, Blunkett (2000) made it clear that 'Colleges must have an overall plan for the use of ICT across a broad range of learning areas for obtaining high standard learning materials, developing teachers' skills, and supporting students' learning through ICT' (p.21). He also expected all FE colleges to draw up action plans for supporting the training needs of their staff and that they should set clear targets for developmental activities. Given the importance of ICT, Blunkett also insisted that,

> '*Each and every college must take action to ensure that the sector as a whole has in place innovative ICT strategies*' (p.27).

In the *Success for All* document, Clarke, (2002) stated, "We are also keen to extend personal access to teaching staff so that they can apply their ICT skills for the benefit of learners", (p.33). Another government document, *Towards a Unified e-Learning Strategy (DfES, 2003,)* was a consultation document promoting the importance of ICT and seeking views on implementing the proposals. It also uses the broader term e-learning and states, "If someone is learning in a way that uses information and communication technologies (ICTs), they are using e-learning" (p.4). The main concern in the document is that, "e-learning is not embedded in our teaching and learning, at any level" (p.4). The purpose of the document is different from previous ones because it moves from just promoting the use of ICT to seeking views on "how education leaders, teachers, and commercial suppliers might contribute to the process of change" (p.5) to make teaching "more creative and innovative, in preparation for the 21st- century global knowledge society" (p5). The document also recognised that teachers alone cannot make the changes and stresses that "educational leaders are not yet fully engaged in exploiting e-learning in their institutions – they need more support to enable them to lead and manage the challenging change processes involved" (p12). New Labour made its intention known to use ICT-related policy agencies as partners to take the proposals forward and achieve the goals.

In its response to *Towards a Unified e-Learning Strategy* in 2004, the Learning and Skills Development Agency (LSDA) agreed the proposed changes. It added that embedding ICT

would not be easy and that it required a whole-college approach, stressing that, "It must inform leadership, management and staff development and qualifications; curriculum design and development; inspection and quality assessment" (p.6). The LSDA found that many leaders did not fully understand the concept of e-learning and that despite having an ILT strategy there was "evidence that some college leaders may incorrectly perceive this to be simply an add-on to their overall curriculum strategy" (p.19). The LSDA notes that the investment in establishing an ICT infrastructure had taken priority over other key issues of strategic leadership to integrate ICT, the need for staff development and curriculum design, leading to the view that "leaders cannot vision what they do not understand" (p.19).

There was also an understanding of the challenges involved in integrating ICT such as "the most difficult transformations to achieve will be the human rather than the technological ones" (p.17) and highlighted that this required a change in culture. It also acknowledged that "the development of staff skills and changing attitudes are some of the most difficult areas in which to produce results" (p.17). These issues were addressed in the DfES publication, *'Harnessing Technology'*.

In 2005, the DfES published its five year e-Strategy *'Harnessing Technology: Transforming Learning.* The document was based on the belief that technology had been available across the education system for some years but provision and progress were still patchy and that it had not been used in education to transform teaching and learning. The document acknowledged that many colleges were at an early stage of their development (p.12) and that 'variations in the use of ICT within and between institutions lead to inconsistent and widely differing experiences for learners' (p.13). The *'Harnessing Technology* e-Strategy set out the intended structures, process and priorities for system reform detailing intentions for different education sectors, including FE.

This document was important in providing direction for colleges. It acknowledged that staff face many personal and organisation challenges in integrating ICT and so require professional development. It promoted the use of ILT Champions to provide additional support to practitioners. To make this vision a reality, it also acknowledged that senior management needed to understand the strategic role of ICT in their organisations and adopt a supportive approach in helping staff to acquire the necessary skills. The document further recognise that "local institutions have always adopted technology at a pace and specification to suit their needs, interests and capabilities" (p.14). This flexible approach is to be welcomed because it recognises the uniqueness of each institution and permits flexibility. Flexibility is something of a double-edge sword because, as Spours et al. (2007) remind us, that educational institutions translate government policy into systems of implementation that suit their local or administrative needs, which may or may not reflect accurately the intentions of those who designed the policy.

6.3 How are national ICT-related policies integrated in the three FE colleges?

At a practical level this means that it is the responsibility of the individual college to interpret national policies and put them into their college's strategic plans. Policies relating to the integration of ICT are interpreted by senior managers in the individual colleges and included in their strategic plans. In further education colleges the SDOs (Staff Development Managers) have a key responsibility for planning and organising the professional development and training of their workforce. Other duties include keeping up to date with new government requirements and industry developments as well as attending development and training related events, such as seminars and conferences. The findings for the Colleges under the study showed that they all have their individual strategic plans[15], which provide the framework for the future direction for the three Colleges. The content of these is then cascaded down to operational level managers. The strategic plan contributes to the creation of an ILT Strategy.

[15] A Strategic plan can be defined as a detailed document, which relates to an organisation's strategy; their aims and objectives are set which are to be met as part of their business mission.

6.4 *ILT Strategy in the three colleges*

All three colleges involved in this study have ILT Strategies, which are similar in content. The function of the strategy is to provide clear targets, which aim to work in conjunction with the individual colleges' mission statements. The strategy is used to integrate technology across all curriculum areas, raise awareness of technology in teaching and learning, increase the use of the Virtual Learning Environment's (VLE), both for students and staff, and promote the sharing of best practice. The strategy further details the ICT infrastructure, guidance on equipment specifications, software and hardware issues. It also addresses the network infrastructure, the provision of technical support, network disaster recovery plan, management procurement and staff development issues.

The delivery of the ILT Strategy is shared between the ILT Managers and the SDOs (see diagram 4).

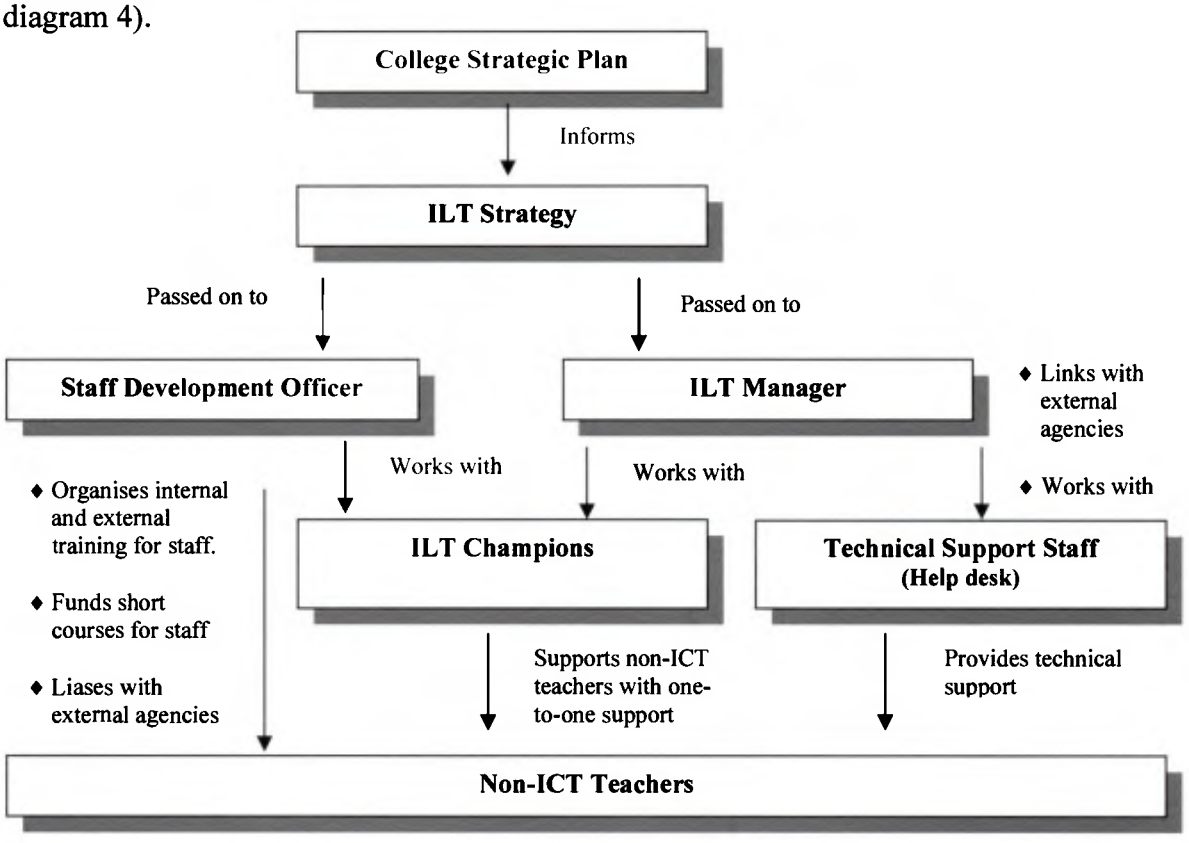

Diagram 4: **How government policies on ICT filter down to practitioners in colleges**

The SDOs then use this ILT Strategy to develop ICT-related training programmes to be offered to the college administration and teaching staff, whereas the ILT Managers uses the ILT Strategy to develop training programmes for the ILT Champions and the technical

support staff. The role of the ILT Champions is to support the practitioners to integrate ICT into the curriculum. ILT managers are also required to provide the necessary ICT-related equipment through their technical support staff and organise relevant training for FE practitioners so that they can integrate ICT into their everyday teaching and learning. When asked what else informed their ILT Strategy, the ILT Manager in College A said, *"We get support from our London RSC[16] and also help in developing a learning support strategy for ILT and ICT."* The London RSC is part of a national agency called JISC. Its role and that of the other policy agencies are discussed in relation to Question 2.

[16] RSCs (Regional Support Centres (Part of JISC) exist to advise educational institutions of designated sectors to realise their ambitions in deployment of ICT to achieve their organisational mission.

New Labour's continued commitment to promoting technology in teaching and learning can be seen in documents listed below in table 5.

Policy and policy promotional documents	Year of Publication
Learning for the 21st Century. DfEE	1997
Further Education for the New Millennium	1998
Use of Technology to Support Learning in Colleges – FEFC national survey	1998
The Learning Age – A Renaissance for a New Britain – DfEE Green Paper	1998
Learning to succeed: a new framework for post-16 learning- DfEE	1999
Colleges of excellence and innovation – David Blunkett - DfEE	2000
Success for all: reforming further education and training - DfES	2002
21st Century Skills - Realizing our Potential: Individuals, Employers Nation.	2003
Towards a Unified e-Learning Strategy DfES	2003
Skills in the Global Economy	2004
14 to 19 Education and Skills White Paper	2004
16-19 Curriculum and Qualifications Reform -Tomlinson	2004
Equipping our Teachers for the Future: Reforming Initial Teacher Training for the Learning and Skills Sector.	2004
E Strategy - Harnessing Technology – Ruth Kelly	2005
Realising the Potential - Review of the Future Role of FE - Foster	2005
Skills in the UK: The Long-Term Challenge. Interim Leitch	2005
Skills: Getting on in Business, Getting on at Work part 1	2005
Initial Teacher Training–Making the Reforms Happen. Learning and Skills Sector. DfES,	2005 no mention of ICT
FE: Raising Skills and Improving Life Chances – Kelly-DfES	2006
Realising the Future: A review of the Future Role of Further Education Colleges	2006
World Class Skills – Implementing the Leitch Review (FE White Paper)	2007
Raising Expectations – Staying in Education and Training Post–16.	2007
Further Education Workforce Reforms - Explaining Initial Teacher Training. Continuing Professional Development	2007 no mention of ICT
Raising Expectations: Enabling the system to deliver - DIUS	2008
Innovative Nation - DIUS	2008
Independent Review of ICT User Skills –Baroness Estelle Morris-TSO	2009
Raising Skills, Improving Life Chances: Giving Learners and Employers a Say –DIUS.	2008
Digital Britain - TSO	2009
Implementing the Race to the Top - DIUS	2010

Table 5: **Policy documents promoting the use of ICT in education.**

6.5 Question 2: 'How have national policy agencies supported the development of non-ICT FE teachers to use ICT in their teaching?

6.5.1 Introduction

New Labour realised early on that its vision to integrate ICT could not be carried out by policy documents alone, but required a supportive partnership approach. One of New Labour's early key initiatives beginning in 1999 was the creation of a national network of policy agencies to lead its vision of integrating ICT in education under the National Learning Network (NLN). NLN is the umbrella term used to describe the entire provision

that has arisen from New Labour's announcement to invest in technology in FE colleges and to promote their capability in ICT. The role of the NLN was to develop the IT infrastructure and increase the uptake of technology across the learning and skills sector. The NLN initiative / Joint Academic NETwork (JANET) linked all FE colleges together to provide access to the Internet as a resource base and as a means of sharing knowledge. The e-Strategy *'Harnessing Technology: Transforming Learning* set as a priority the role of partner stakeholders in providing good quality ICT training and support package for practitioners.

6.5.2 *Who were the policy agencies?*

Under the umbrella of the NLN, there were many ICT policy agencies. One of the biggest promoters of ICT polices was the British Educational Communications and Technology Agency (BECTA). Other agencies under the NLN umbrella include the Joint Information Systems Committee (JISC), Learning Skills Network (LSN) (formally known as Learning and Skills Development Agency (LSDA). The NLN has been supported by the other key agencies such as NILTA and UKERNA (United Kingdom Education and Research Networking Association) (See diagram 5 below). All policy agencies contribute across the education sector. However, other partners of the NLN such as NIACE (National Institute of Adult Continuing Education) have an adult focus while others such as the Further Education Resources for Learning (Ferl), the sister organisation, is specifically concerned with supporting the development of ICT in FE colleges.

Diagram 5: **Partners under the national learning network** umbrella

Some of the above-mentioned organizations such as Becta, JISC and LSN have carried out numerous independent ICT-related research and the findings have been presented at seminars and conferences to share good practice using ICT. Over the last decade many of

these policy agencies have generated ICT resource banks where related articles and ideas for using technology effectively in the classroom are available. These resources are developed by policy agencies with the support of ICT practitioners in order to support others who need help in this field. The individual web pages of all policy agencies stress that ICT should be embedded in all curriculum areas regardless of the subject being taught by FE teachers. Unfortunately, the NLN has now closed but their work continues through the Learning and Skills website. Since coming to power in May 2010 the Coalition Government announced the closure of BECTA in a bid to reduce public expenditure (Becta, 2010b).

6.5.3 *Policy agencies supporting FE*

All three Colleges were asked which national policy agencies they worked with regarding training teachers in ICT. The three Colleges reported having some form of links with Becta, Ferl, LSN, NIACE and JISC or other agencies, which provide ICT-related guidance, advice and support for integrating ICT into the curriculum. These organisations also offer training-related seminars, conferences and some resources to aid SDOs to deliver 'activity rich' ICT training to all members of college staff. The SDO in College B said,

> *"We are currently going through a programme on e-learning with JISC, also we are doing a project with LSN. In terms of BECTA, maybe soon."*

The above SDO also suggested that these external links with policy agencies were very useful as they provided the College with new and innovative ideas about using ICT in teaching. These organisations offered advice, guidance and technical support and more importantly ran specialised training sessions, seminars and also ICT-training related conferences to which the FE colleges were invited. The SDO in College C said,

> *"We worked with LSN, QIA, LSIS. You can have organisations come in, demonstrate or deliver to staff...this is what a grade one lesson would be like, this is what you should be doing...the problem is getting the staff to do that. There is a problem with taking what they (teachers) learnt and using it."*

The above quotation shows that there are links with external policy agencies but according to the SDO when planning ICT-related training with one of the above organisations, the

exercise is futile as the teachers do not turn up to the training session or do not use what they have learnt in their work. Another SDO in College A, who organised ICT-related training courses involving external agencies said,

> *"I used to invite them (external agencies) and I would run a half-day course or two half days, I did different days different times to accommodate staff with different teaching routines. Even though staff would cry out for it but when you put the training on...they don't attend. I would spend £1,500 on a specific course that teachers have asked for....three teachers turned up, that's not cost effective."*

The above SDO said that she was engaged in a constant losing battle; organising ICT-related training to which teachers did not turn up and money was wasted. She blamed the non-ICT teachers because this had happened a number of times. There is no doubt that it can be very disappointing for anyone organising a session to find that the uptake is extremely low. Clearly, the current procedures for organising training for staff, especially non-ICT teachers are inadequate.

6.5.4 ***Views of policy agencies: Contributions made to the three colleges***

Out of the four policy agencies interviewed for this study, only two organizations' spokespersons vaguely remembered doing some work with College A and C, but were not sure about College B. According to the three policy agency spokespersons, the three colleges involved in this study had very little communication with them regarding the use of ICT in teaching and learning. The LSN spokesperson was asked who they had worked with to provide ICT technology to FE and commented:

> *"We work with partner organizations such as Becta, NILTA and JISC. We all come under an initiative called the National Learning Network. The infrastructure is about connecting all the colleges together so they can gain access through JANET."*

The NLN has been developing the content so that FE colleges can have access to high quality resources. The LSN spokesperson also said that she provided training programmes to show FE colleges how to use the resources across all the different curriculum disciplines to ensure that the ILT policy is set up to improve the teaching standards using technology.

It appeared that although they share the common purpose of providing guidance and technical know-how on key ICT training issues to FE, they were also quite individual. Some of the policy agencies saw themselves as government-led agencies, working closely with the then Department for Education and Skills (DfES) in the development and delivery of ICT. Others regarded themselves as independent agencies providing ICT training and support for FE colleges and their teachers.

6.6 *Support and training for non-ICT teachers*

When asked how they helped and supported FE colleges, the other policy agencies' responses were similar to the LSN spokesperson. They worked with other partner agencies, which were set up to promote teaching and learning. These agencies rely on each other's strengths to support FE. When asked how their work is actually carried out, the JISC spokesperson said,

> "*We have a strategy for delivering our work. Our work is tailored to meet the objectives of the NLN. We ensure that these policies are being met by holding events, taking feedback from these events. Doing visits with people at various colleges and talking to people about their needs. Hopefully, finding ways to support their staff development.*"

Other agencies such as Becta and Ferl, said that they also put on events such as seminars and conferences to attract FE colleges and offer relevant ICT-related training and other staff development. The spokesperson for Ferl commented,

> *"I see them (policy agencies) go in, do a blitz* (on the use of ICT) *but not necessarily on how can they can help colleges."*

This particular spokesperson was sceptical about the work of the other policy agencies. He believed that some agencies go into colleges but do not necessarily provide any real support but rather to collect information and intelligence for their own benefit. He further added,

> *"I think what we do is put into place good practice and help people develop systems and how to develop staff development activities to improve both the teaching aspects and student achievements."*

The above matter was bought to the attention of the JISC spokesperson who agreed with the spokesperson at Ferl and said,

> *"At the moment we will come in and look at you (FE colleges) and measure you to see if you are any good, we then write a report. We are not going to interfere but let you sort yourselves out."*

This statement was rather alarming as it was quite unexpected. The above spokesperson made it clear that they did not interfere with any FE college but only provided advice in the form of a report. He further commented that ICT training and other activities came much later. The discussion highlighted the fact that there are a number of cost-related issues to these 'collaborations' between FE colleges and the policy agencies. It soon became clear that colleges were 'budget constrained' and they were therefore not their favourite customers because they tended to develop their own local strategies rather than relying on policy agencies.

The LSN spokesperson said that they did not get too involved with the training side and normally left that to the individual college. He further said,

> *"What we do is show (college) staff to apply the skills imaginatively and innovatively and to use it to complement what they do within the normal classroom activities."*

When prompted further, this spokesperson said that they provided useful advice for staff development officers and that their real work lay in disseminating good practice through seminars and conferences as is evident in the following statement.

> *"We look at who has developed systems or models and using it. It could be a lecturer doing that. We invite lecturers to come and share that practice with other lecturers. So it's like building models of good practice."*

6.7 ***Views of Policy agencies': Issues of ICT generic courses and inadequate training***

When asked how the ICT training of non-ICT teachers could be improved in colleges, the spokesperson of JISC said,

> *"We always argue that training should be context driven. Many colleges have done blanket ICT training. We found that many colleges have found this ineffectual."*

This is further evidence that generic courses are not always useful or productive. What is required are individual ICT-related training programs for all non-ICT teachers. The cost of these individual courses will no doubt be more expensive, but it is likely that the benefits will outweigh the costs. The JISC spokesperson blamed the FE SDOs for not delivering appropriate ICT training and identified two main reasons for this,

> *One, because it may be that they (SDOs) follow a particular curriculum which they are required to cover a range of (ICT-related) software which is not appropriate and secondly they (SDOs) have not really worked out how to get the use of computers more active; so they kind of blindly deliver ICT training."*

This spokesperson of JISC also believed that more and more people in FE were becoming familiar with concepts such as e–learning, ILT and ICT in the context of delivery of teaching and learning. He wanted to see all FE colleges provide ICT training with a clear understanding of its purpose, which would benefit the college and the non-ICT teachers as well as the learners.

6.8 ***Policy agencies: outreach workers***

All the policy agencies mentioned above have regional outreach workers who go into colleges to talk about the NLN materials prepared by themselves and other agencies. Here the opportunity to do business such as support for the integration of ICT in teaching and learning are discussed. The feedback from the outreach workers is fed into the individual organisations in order to hold events and other related activities. The role of these policy agencies and their function within the three FE colleges is rather complex. One moment they are seen as major contributors to FE colleges and the next they are doing research for their own organisational goals. Just how much they have contributed to the integration of ICT into FE teaching and learning remains questionable.

6.9 ***Conclusion***

New Labour realised that ICT would continue to remain a driver of global competitiveness. It also acknowledged that a strong ICT workforce was required for successful participation in the global economy and this could only be achieved by integrating ICT in teaching and

learning. New Labour accepted that FE had a major role to play in developing work skills. In support of this, it produced policies highlighting the important role FE should play in ensuring an ICT literature workforce and established policy agencies. In doing so, New Labour realised that embedding ICT required policy scaffolding to realize the vision in terms of support from policy agencies, institutional ICT strategic action planning, management commitment, staff development and curriculum design. However, the vision was easier than the reality because colleges have very different financial conditions, different levels of commitment towards ICT, and different stages of their ICT planning and development. Some of New Labours policies were directives while others were more promotional. As polices get filtered down to institutional level, the human element means that policies can have less impact in reality. The situation in the three Colleges shows marked variations staff development, ICT planning, recording procedures and attitudes towards staff. The role of the policy agencies at national level was clear but also varied at a practical level with some more self-serving than others.

Findings and discussion:
Development and support for FE teachers in their use of ICT

CHAPTER 7

> *"Do not train children to learning by force and hardness, but direct them to it by what amuses their minds, so that you may be better able to discover with accuracy the peculiar bent of the genius of each".*
>
> Plato [387 B.C.]
> [https://sites.google.com/site/tourodhall/home/favorite-educational-quotes]

7.1 Question 3:
What training and continuing professional development opportunities exist to enable non-ICT teachers to integrate ICT?

7.2 *Introduction*
The chapter considers how the three Colleges under study support their teachers to become confident and competent in the use of ICT. A first step in promoting its use and enabling teachers to develop the necessary skills is access of equipment. The chapter aims to provide an insight into the ICT-related equipment available for use such as computers, virtual learning environments and interactive whiteboards in the Colleges. A natural second step is to provide support to enable non-ICT teachers to integrate ICT in their teaching and learning. The rest of the chapter identifies who is responsible for organising professional development and the strategies used to determine training needs. It discusses the training and CPD activities available including strategies to motivate teachers to further their own learning. The views of the SDOs and TSS are contrasted with comments from the teachers to compare the different perspectives of the situation.

7.3 *Infrastructure*
Over the last decade one of the most important obstacle to using ICT was physical access and it severely reduced teachers' ability to integrate technology (Mumtaz, 2000; Turner, 2001; Franklin et al. 2001; Bauer and Kenton, 2005 and Clark, 2006). This was mainly due to lack of investment in ICT-related equipment. It might also have been because ILT strategies were often seen as just

relating to equipment or systems integration rather a holistic approach that included appropriate technology, software and staff development.(University of East London, 2006).

For ICT to be successfully integrated students and teachers must have access to technology. New Labour policy initiatives helped address this problem and with support from the NLN access was steadily increased. A Becta 2004 report, *ICT and e-learning in Further Education – embedding technology, evolving practice,* noted that colleges were at different stages of ICT adoption and integration. About 25 per cent were considered as innovators, keen to use technology. Some 49 per cent were considered as early adopters, in other words still getting to grips with ICT. About 25 per cent were described as cautious adopters, still to be convinced of the benefits and the final 1 per cent late adopters, seeing ICT as not particularly relevant. These variations highlight the fact that the culture of the organisation can play a huge role in promoting ICT. A later report by Becta in 2006, *ICT and e-learning in FE survey,* noted that many colleges were considered to have a more robust ICT infrastructure and estimated that this would need to be replaced every five years. Colleges were also found to be somewhat reluctant in their decision to replace old stock. However, it was also noted that as the future use of computers increased, demands for more up to date computers would also increase. The report also found that senior management in many colleges were becoming increasingly committed to the ICT agenda. A 2008 review by Becta found that there was still a stubborn core of colleges that were not fully committed to embracing the potential or use of ICT willingly. Against this changing background, the next sections present the situation in the three Colleges.

7.4 ICT *equipment in the three Colleges*

In recent years all three colleges have made significant investments in their IT infrastructure and also to their ICT facilities. All three colleges had access to the Internet and had fully equipped student-learning centres. They all saw technology as a priority for their students. In Colleges A and C most of the computers were five to six years old which means they were outdated by

industry standards. They were very slow to start up and took even longer to process information such as printing files and logging onto the Internet. This could be due to the fact that the computer processors were too old or that the software programs were larger and more complex requiring faster processors. Most FE colleges have budget constraints and therefore, keeping up with the latest technology in education still may not be always seen as a priority. Especially as colleges tend to use their own general budgets to purchase equipment (Becta, 2005).

7.4.1 *Equipment: Virtual Learning Environment (VLE)*

Educational institutions have coming under pressure to join the virtual realm (Galloway et al., 2002). Today, VLEs have become firmly established feature of FE colleges. They are seen as a key teaching and learning tool to make the experience of learners more engaging and flexible in terms of time and place, allowing them time to work at their own pace. The VLE also allows learners to access course-related information, such as lecture notes and assignments, as well as on-line learning resources. VLE tools included communication facilities such as group discussions, uploading of course content, students submitting work for assessment, administration of student groups, collecting and organizing student grades, quizzes, questionnaires and many more options. VLEs support teaching staff to manage, monitor and track learners more closely in terms of retention and achievement.

All three Colleges placed high priority on the use of VLEs for connecting learners with their teachers, as well their peers. All three Colleges viewed VLEs as part of the curriculum provision and expected their teachers to use them to support the different aspects of student learning. Teachers were told that VLEs were part of the curriculum provision and the extent to which they are used would form part of the Ofsted inspection process to grade teachers and the individual college based on the relevant IT skills to demonstrate good use of ICT facilities. In the Colleges the theory that that they should be widely used was not matched by usage. The ILT Manager in College A stated:

"The use of VLE traditionally has been very patchy; the pick up is starting to get there."

College A has only recently started to use their VLE (Moodle) for academic purposes with only few schools within the College regularly uploading files and course-related information for both students and teachers. The table below shows the current usage of VLEs in the three colleges. Out of the 31 non-ICT business studies teachers interviewed only 12 used it frequently (39 per cent), three people (9 per cent) used it sometimes and surprisingly 16 teachers (52 per cent) have never used it.

Institution	Frequently	Sometimes	Never used
College A	3	1	8
College B	8	0	2
College C	1	2	6

Table 6: **Use of VLE's by non-ICT business studies teachers**

The above table shows that the case was rather different in College B. They had been using the VLE for a longer period of time than the other two colleges. This could be due to their links with their sister university and access to larger funds. According to the ILT Manager at College B there had been regular training on both Interactive White Board (IWB) and on the VLE Blackboard[18], which is a course management device where teachers and students are able to communicate and collaborate with their students. The VLE in College C was called Moodle[19], which has similar features to Blackboard. Moodle is designed to support teachers/educators to create online courses, which offer many opportunities for student/teacher interactions.

7.4.2 *Teachers' views on their use of VLEs*

Attitudes to using the VLE were positive but actual usage was mixed as the following comments show. One participant from College A was positive about their VLE and said:

[18] Blackboard is a Virtual Learning Environment that supports online learning and teaching. It can be accessed by registered users from anywhere in the world using the Internet and Web browsers.

[19] Moodle is e-learning software platform also known as a Course Management System (CMS), or Learning Management System.

> *"Increases students' learning and easy for me to deliver complex, materials. I submit materials and students can test their own learning which does not require my time or involvement."* [A7]

Participant A7 appreciated its potential not only motivated his students but also engaged them to learn more. Another teacher at College A said,

> *"I have not used it really for the students. Frankly, there's not much in there. I put some materials there but no student wants to use it because it's not really user friendly."* [A4]

There could be many underlying factors why some teachers are not using the VLE such as lack of confidence in the VLE or lack of perceived usefulness. The problem with VLE usage was not isolated to one college. One teacher in College C stated,

> *"It does not always work. If it was working I would put my courses on there. Well, it's not working."* [C7]

From the above statement, we can see that there is genuine interest in the use of VLE but once a teacher cannot rely on it, they may lose confidence in the system and it may be more difficult to get them to use it.

7.4.3 *Equipment: Interactive White Boards (IWBs)*

The availability of IWB across the Schools of Business Studies in the three Colleges was good. However, there were some variations when it came to usage. Both Colleges A and B scored 100 per cent in usage, whereas, College C scored the lowest at 88 per cent. One interesting finding was the continued use of whiteboard and marker pens. All three colleges did not simply rely on the latest technology, but also used whiteboard and markers as an additional method to enhance their teaching and learning. The table below shows the results of the three Colleges' use of technology- based teaching aids.

Equipment / teaching tools	Frequently	Sometimes	Never
Video conferencing	0 (0%)	0 (0%)	31 (100%)
Virtual Learning Environment (VLE)	7 (22.6%)	8 (25.8%)	16 (51.6%)
Whiteboard & marker pens	29 (93.5%)	2 (6.45%)	0 (0%)
Digital projector	19 (61.2%)	7 (22.6%)	5 (16.1%)
Interactive whiteboard	**19 (61.2%)**	**10 (32.2%)**	**2 (6.4%)**

Table 7: **Use of ICT-related equipment**

IWBs have enormous capacity to enliven teaching and involve learners to give them more classroom control over their own learning to create an interactive environment. However, if teachers are unaware of IWBs potential, then they cannot make full use of them. The low use of IWBs in the three Colleges might be explained by the fact that teachers have not had the relevant training to enable them to appreciate their full range of applications. Teachers also may not appreciate that IWB require a new teaching approach (Glover and Miller, 2001). An important point that sometimes gets forgotten is that teachers frequently make sense of new technologies in the light of their existing knowledge and experience (Triggs and John, 2004). Consequently, in such cases "many teachers are likely to use digital whiteboards as an extension of the non-digital whiteboard" (Armstrong et al., 2005, p. 458). In other words, it becomes a presentation tool to show files using Word, PowerPoint slides or video clips to maintain interest. Research by Becta (2004) found that the use of such technology was widely used to support learning or promoting independent learning rather than for classroom delivery. This closely links to levels of teacher confidence and knowledge.

A study by Hammond et al. (2011) on the skills of students teachers' usage of IWB's could be categorised as routine, extended and innovative. The differences demonstrated different levels of knowledge, confidence and usage. The mix of factors also resulted in different degrees of teacher control in the classroom from that of more teacher-centred teaching to that of learner-centred. This highlights the need for ICT training to be more focussed and purposeful.

7.5 *Training the FE workforce*

The importance of professionalising the FE workforce was highlighted in *Colleges of Excellence and Innovation* (2000) Blunkett stated:

> *"Staff development will be critical to successful colleges of specialist expertise. They will need to ensure that their staff are not only experts in their field now, but have access to appropriate professional and industrial updating" (p.25).*

However, two years on there was a realization that the policy intention was not matched by policy action in relation to teacher professional development. The document *Success for All - Reforming Further Education and Training* (2002) stated that, 'For some colleges workforce development may not be a major part of their mission" (p.42). As already discussed in Chapter 2, new FE reforms were introduced to ensure that all new and unqualified teachers are required to obtain a 'licence to practise' from the IfL and all full-time teachers complete 30 hours of CPD every year or pro-rata for fractional staff. However, as Jephcote and Harper (2010) note, formal teacher training has received much Government interest but CPD has received less. This section explores the role of the SDO in providing training and CPD to non- ICT teachers.

7.6 *Role of SDOs in supporting professional development*

The duties of the SDOs are varied and are determined by the nature, provision, size, goals and vision of different FE colleges. They are responsible for keeping up to date with government requirements and new industry developments as well as attending events, seminars and conferences. SDOs report to senior management. In all colleges they are responsible for the ongoing and long-term improvement of staff skills, which includes providing appropriate training and monitoring the progress of staff training.

7.7 *Training issues in the three colleges*

According to the three SDO's, attendance on staff development days is mandatory in all three colleges. The development days are normally organised at the end of term and generally there are two to four days dedicated to training throughout the year in all three colleges. All three Colleges traditionally put on training sessions and teachers had limited choice and no option but to attend. With the establishment of the IfL and the introduction of the mandatory CPD requirements, teachers are given a list and choose from a number of events or the Heads of School decide what their staff should attend. What is alarming is that the findings in this study show that only a few one-or two-hour, ICT-related sessions are offered during these training days. In all three Colleges additional staff development is carried out at curriculum level, which

may not be ICT-related. College A and B reported that from time to time additional training is offered on ICT on Wednesday afternoons, time normally available for school or departmental activities, but the take up is extremely low. Later, in the interviews, teachers in College A expressed real interest in attending ICT training but commented that many taught evening classes that night and needed time to prepare, while others said that they felt pressured to complete pressing administrative tasks. When probed further on the type of training delivered at curriculum level, the SDO in College C said that often the curriculum-related training sessions are not reported to her. She added that it is the responsibility of the teachers to keep records of their training and not hers.

7.7.1 *Views of SDO's: Identifying non-ICT teachers' training needs*

The SDO in College C was asked how the needs of non-ICT teachers in the School of Business Studies were identified, she replied,

> *"I can't identify their needs because I don't know what they are doing. Some of their needs comes through to me after observations ...if they are not using IWB, they are not putting stuff on Moodle, then they are not using ICT in a productive way in the classroom."*

The above quotation is rather concerning; not knowing what the teachers are doing demonstrates the lack of a formal system of communication between the SDO and the teachers. Further, it suggests an absence of adequate procedures to identify and address staff training needs. Identifying training needs earlier would enable the SDO to plan ahead and address the needs of non-ICT teachers during the already 'rare' CPD training days. This SDO relies heavily on the yearly college observation reports from the Head of School to identify which teachers require ICT training. This method is inefficient to identify individual ICT training needs for two main reasons. First, the topic being taught during the classroom observation may not readily lend itself to ICT and second, it would be far better to ask the teachers directly rather than waiting a full year and getting the information from the observation reports.

College A has similar problems to College C, where the SDO said,

"We are in the process of developing a needs analysis which looks at their ICT (teachers) and e-learning needs."

In College B, the SDO reported that ICT training needs are identified through observations, appraisals, reports from the Head of School, the Teacher Training Leader (TTL) and also by the individual teaching staff. This is a far better approach; receiving information about training needs from various sources helps the SDO to plan and deliver more relevant and meaningful training geared to individual teacher's requirements rather than offering blanket sessions which may or may not be useful to all non-ICT teachers. The SDO in College C said,

"We still have a deficit of staff that haven't gone on the (ICT-related) training. Some staff are way up high and some barely turn the computer on. What we are doing at the moment is going into the schools to find out where things are at, so we can bring the staff up to a standard level and move forward from there. It's difficult."

Based on the above statement identifying the training needs of the non-ICT staff as early as possible must be paramount. The SDO in College C has taken the initiative to go to the individual schools to address this problem. In fact this strategy should have been employed much earlier, which would have saved time and effort for both the SDO and the non-ICT teachers.

7.7.2 *Views of SDOs: Training costs*

All the three colleges' SDOs agreed that running generic ICT courses was cheaper than running individual or group sessions. When asked if her college provided any specialised or external ICT-related training, the SDO in College C said,

"If you do group training then it is cost-effective, it brings down your cost. If you are sending an individual on individual courses the cost can be quite big, it could be £300 to £500. It can be costly."

She further commented that her budget did not allow for many external courses. She had to be very selective about who to send and on what course. She also said,

"I don't specifically allocate money to ICT training...well I do to some degree. There is a portion of money put aside for ICT within each area depending on the area's need."

This SDO made it clear that she only had a limited amount of money set-aside for ICT training and that ICT was not a major priority. When asked if she received any funding from other external sources for ICT-related training she said,

> *"Not to run ICT courses. I get additional funding from the LSC for initial teacher training. I was given additional money for ITT for people who had not qualified as teachers but not specifically for ICT, no."*

From the above statement it is clear to see where the priority lies when it comes to training non-ICT teachers. She further stated,

> *"People think internal courses don't cost anything, it is a full-cost provision. I am robbing Peter to pay Paul."*

Research by Becta (2004) on FE colleges confirmed that generally there is no specific staff development budget for ICT, but rather ICT is part of a global staff development budget.

7.8 *Strategies to support teachers*

The following section discusses some of the current support strategies being used to help non-ICT business teachers to use ICT in their teaching and learning, such as use of incentives, ILT Champions, access to resources and also monitoring and follow up after ICT-related training,

7.8.1 *Incentives for non-ICT teachers*

When asked if the college provided any form of incentives for non-ICT teachers to learn to use ICT, one SDO in College A replied:

> *"We don't provide incentives for anybody. At the end of the day you are employed to do a job and part of your contract is that you are ICT literate and that you make use of IWB and that you make use of Moodle and as training is readily available there is no reason why....it's part of their (teachers) contract."*

This is a rather harsh response and suggests the lack of support that can be expected. If this person understood the daily workload of FE teachers then perhaps her response would have been different. She also had a misconception that using ICT is part of teachers' contracts. In reality, ICT is part of a teacher's CPD and also part of the job description requirements but not part of the teachers' employment contract. The other two colleges did not provide any form of

incentives either. The SDOs in Colleges B and C were both dismissive that any incentives should be provided as it was part and parcel of teachers' job roles. This is not in line with New Labour's policies. For example DfES (2003), *Towards a Unified e-Learning Strategy – Consultation Document,* highlights the importance of establishing professional competence, career paths. On page 13 it stated, "There is too little training or reward for teachers and lecturers who wish to adopt or develop e-learning – we need to offer more courses and more incentives, such as qualifications, career promotion, and access to technology." Again in the *Harnessing Technology* document New Labour recognised the demands that ICT would put on teachers at all levels and stressed that they must be given the necessary means and motivation to fully engage in the use of ICT. Although the document did not specify what kind of incentives, something no doubt left to the discretion of individual colleges, they could be as simple as training manuals, books, CD ROMs and so on. However, Trucano (2005) provides an interesting list of possible incentives that must be in place to encourage the use and integration of ICT. These could include certification, professional advancement, pay increases, paid time off to participate in professional development, formal and informal recognition within the educational setting and by peers.

7.8.2 ***Teachers' views on incentives***

When asked what incentives a non-ICT teacher received, one teacher at College A said,

> *'Well they could offer me some time to train and not always in my time either. Incentives.... I would like them to pay for courses within the college or outside the college. And give me a (laptop) computer. And some handbooks maybe, so I can go home and practice what I am suppose to.'* [A12][17]

The above interviewee is no doubt asking for a number of things such as more time to train and learn and for the College to make financial contribution towards an ICT-related external course. However, neither the College nor the SDO are prepared to spend money, because of their tight budgets. Access to a laptop and some ICT-related handbooks should not be a major problem, but even these are not made available. Another teacher in College C said,

[17] The coding A12 represents College A and teacher number 12. Therefore, C3 would be represented as College C and teacher number 3.

> *"I don't need a great incentive. My incentive is myself. The College just has put on a course that is suitable."*[C4]

The above teacher is very positive towards using ICT but requires a suitable course at her level of knowledge. Another teacher who felt equally positive from College B said,

> *"I think technology is part and parcel of the world that we live in now. So that would be my motivator."* [B1]

Whereas a teacher in College A said,

> *"Well I suppose a personal (training) timetable of some sort. Someone looking at my training needs and actually supporting me. At the moment there is this enormous beauracracy and one is stressed and one loses interest."* [A9]

This teacher commented that if someone wanted training they would have to go and find the staff development people themselves or the ILT Champion, but that they were rarely available. He said that often teachers were told that there was no money available for training or to see their line manager for training requirements.

From the findings it is clear that the only incentives sought by these teachers were extra time to learn or practice, access to a laptop for their personal use, financial aid for ICT-related short external courses and finally someone to discuss ICT-related topics with them and who would support them in integrating ICT into their subject areas. This was confirmed by the teachers in College B, who were offered reasonably regular training, and were not concerned about the lack of incentives. Nevertheless, most teachers stressed that they would like extra time to learn and to integrate ICT more fully.

7.9 Monitoring and follow up after ICT-related training

Both College A and C had no proper monitoring procedures in place. The SDOs in these two Colleges believed that monitoring was important but did not have a database to check non-ICT teachers' training needs, nor any follow up procedures of training already provided. For this reason the ICT training that was being delivered was usually a repeat of previous sessions and did not take into account what teachers actually required. The SDO in College A said,

"We are still working on our needs analysis program which is basically just a form which will get fed into a database. So at the moment we don't actually do any follow up. We don't have a monitoring system as yet but it's in the pipeline."

College C is in a similar situation where the SDO stated,

"The system we have at the present reports in a linear way. The system we have at the moment is not fit for purpose."

These are very strong words, yet in her two years in this College this SDO had not managed to put in place any monitoring or follow-up procedures. She further added,

"*There is only me and 'D' and it is very hard to monitor 400 people in the college to see who's done what.*"

Providing ICT-related training for over 400 members of staff is no easy task, especially when only two members of staff development are delivering it. However, there is no justification for not keeping adequate records of who has received training and if any further training is required.

7.9.1 *Teachers' views: follow up support after training session*

When asked what follow up options there were after training sessions, one participant from College A said,

"*The problem with many of these (training) sessions is that when we go to them- then that's it. There is no sort of follow up.*" [A8]

Another participant in College C said,

"No follow up, no. In terms of someone coming to the classroom to follow (up) the training, that doesn't happen as far as I know."

College A and C will need to put procedures in place for both monitoring and follow up purposes. Another participant was very clear when she said, *"I don't feel I get support from the College"* [A7]. These are very worrying comments and it seems that the voices of these teachers have gone unheard. In College A, there is bitterness about the lack of ICT-related training and follow-up. They feel isolated and that their concerns are not being heard or their needs met.

The situation is rather different in College B. In 2008, they developed a database of all their ICT-related training sessions and more importantly they provided an adequate follow up of training to

their non-ICT teachers. They also offered training for each member of staff throughout the academic year so all teachers could meet their IfL CPD requirements. It is sad to report that College A and C have no such provision for their teaching workforce. The reasons given by the SDOs at these two Colleges for the lack of monitoring and follow-up were that they were short of staff and suffered from budget constraints.

7.10 Role and views of the technical support staff (TSS)

The TSS deliver a wide range of services. They are responsible for the support and repair of networks and computer systems. They assist in the operation of the colleges' IT network, identify day-to-day problems and determine appropriate responses via the 'helpdesk', install, test and upgrade integrated software systems, monitor network performance and liaise with suppliers about support issues in relation to the college technical systems. It was important to understand the views of the TSS and get a better picture of the needs of non-ICT teachers. Some TSSs suggested that most teachers were still not familiar with the equipment in their care and would call them for the most obvious reasons and for tasks they should already know. When asked what non-ICT teachers actually called them for, one TSS in College A said rather arrogantly:

> *"Simple things. They (teachers) are lazy; they don't want to try it for themselves. They know they got a service, so why not use it. They are not learning it because there is help available. If there wasn't a Computer Information Services they will be forced to learn it."* [TSA2]

Referring to non-ICT teachers as lazy is rather naive and unacceptable, especially when this particular technician was not familiar with the duties and functions associated with being a teacher. I also doubt that having such views would lead him to help and support teachers in his role as a TSS. Basic computer know-how should be offered as an initial session before more in-depth training is given. Another TSS in College C said,

> *"They call us for simple problems like Word, sometimes it can be irritating, you think to yourself, they should know what they are doing. From my understanding they should really know it."* [TSC2]

Even through College B has more up-to-date computers and the teachers are more highly trained than those in College A and C, one TSS in College B said,

> *"They (teachers) don't check anything; they won't even bother trying switching it on. They do call us for minor little things."* [STB1]

According to the above three statements, it seemed that TSS in all three Colleges were very frustrated and believed that they got called out by the non-ICT teachers for simple tasks which the teachers could sort out themselves. The TSSs felt that because there was a technical service available, teachers did not try to resolve the situation even if they had had ICT training. It should also be noted that the teachers are not insured to repair computer equipment in their classrooms. Another point is that teachers may have students waiting to be taught, especially when the network or computers are down. This, of course, places additional pressure on teachers to call TSS almost as a reluctant act of desperation. In addition, they may have to make alternative arrangements, using traditional teaching methods. This could mean double preparation.

When asked about how much training non-ICT teachers are getting at present and how relevant it is, one TSS in College A said,

> *"It's not enough. They should be taught basic things like how they (computers) work and how they are connected."* [TSA2]

The above TSS believed that the amount of training given to the non-ICT teachers was not enough and that these teachers lacked the basic skills required to use ICT effectively in the classroom. One TSS at College C suggested that

> *"During staff development, they may teach them (teachers) Word or Excel or a particular application, but there needs to be a stage prior to that. So I think they (SDOs) should give them some basic instructions; this is your machine, this is your monitor. Maybe some help with file management. Basically, the mechanics of the machine."* [TSC2]

The above statement is very important. This TSS saw the importance of teaching all non-ICT teachers the basics of computer equipment before they were taught software packages and how to use them. Perhaps including this stage of training would better prepare non-ICT teachers to

value ICT and what it could do for them. Teachers should have a basic understanding of the skills required and they should also acquire some knowledge of troubleshooting (Hew & Brush, 2007). Once this basic level of knowledge was acquired, it would no doubt boost personal confidence and reduce the need to call TSS. One TSS pointed out that they have over 800 computers but only six TSS. It is no wonder that teachers complained that TSS were not available when required. In the next chapter we will look at the non-ICT teachers' views on the topic of technical support.

7.10.1 Issues of technical support: Views of teachers

When asked about technical support, one teacher at College A said,

> *"Generally, I don't think there is enough (TSS) staff and you can't always find them. If I can't locate them on the telephone I would try and go and look for them. There have been times when I couldn't find them I had to wait. I try to become technical support myself."* [A9]

The above statement echoes the feelings of most of the teachers interviewed in Colleges A and C. It is true that the number of TSS is too few and more are needed. Often teachers have to leave their classroom and their students to go and look for the TSS or they try to resolve the problem themselves. Another participant in College A said:

> *"I phone them or run down the stairs and fetch them when I am in the middle of a lecture."* [A7].

The same question was asked in College C and one teacher replied,

> *"If you leave a message on the voice mail, they will eventually get back to you. You have to go to the office (staff room) and make the call."* [C5]

It seems that leaving the class and the students unattended to phone the TSS is a common occurrence in all three colleges. However, if the teaching rooms had telephones then communication problems could be eliminated or if the TSSs had a mobile phone they could respond more quickly. One teacher in College A said,

> *"They tend to come, they are not bad. When the system breaks down, it requires me to leave the class and either go to the Computer Information Support room or send them an email. There are no phones in the classroom to call from."* [A3]

Technical problems are not just isolated to Colleges A and C. Problems also exist in College B but to a lesser extent. One participant in College B stated that,

> *"If the system is down I need to improvise and basically go back to chalk and talk."* [B6]

This teacher made it clear that whenever the network was down he would resort to marker pens and the whiteboard, as there was no other option. However, it is the duty of the TSS to ensure that the computer systems are well maintained and reliable. The following teacher in College C complained:

> *"You are left badly in the lurch when it goes wrong."* [C6]

If the TSS does not respond to a call then the lesson is usually cancelled and students are sent to the learning centre. Each time a network problem occurs, the students no doubt fall behind on their coursework, which gives a bad impression of the College to students. Both teacher and students may lose faith in the network system. Another participant from College B said,

> *"If anything goes wrong, you really need a technical support person. There is no technician available particularly in the evening groups. You run the risk of the whole class collapsing or an exam collapsing."* [B10]

It has been suggested that the role of technical support may need to change so that they have a wider role to play in instructing staff and supporting them to learn not just when things go wrong, but as part of staff development. A Becta report (2006) Delivering the National Digital Infrastructure called for an approach where technical support is part of a planned system. It criticised ad hoc or reactive systems which only responded to problems as they occur. This type of support leads to unreliable ICT systems and also dissatisfaction for those using the system. Although the report discussed schools, it has important implications for all colleges.

7.11 The current culture of the three Colleges

In this chapter we have seen that there are opportunities for non-ICT teachers to acquire ICT skills but what they learn, when they learn and how they learn is generally determined using a top-down approach. The findings show that training may be linked to initiatives which further

points to a restrictive environment. The effects of this top-down approach can be seen in the negative comments from those whose role it is to offer support. It does suggest a shared approach to training and professional development. In recent years there has been a renewed interest in how the culture of the organisation can promote learning or prevent learning. The situation in the three Colleges might be explained partly by applying the expansive or restrictive framework (Fuller and Unwin, 2004) introduced in Chapter 1.

Applying the expansive–restrictive framework, the findings suggest that Colleges A and C appear to be closer to the restrictive end whereas College B has more elements of the expansive end of the continuum. College B appears to take a whole organization approach demonstrating its commitment to engaging and supporting teachers in their own professional development and learning to meet organizational and individual needs. In College B learning was not just directed from the top but also driven by the teachers themselves. This further showed that the environment was more towards the expansive end as it reflected trust and confidence in the teaching staff to take ownership of their learning to maximize their capabilities. College A and C were more towards the restrictive end of the continuum. The organizational culture typified an environment which controlled the teachers more. There was a clear lack of developmental opportunities to gain new knowledge and skills or career progression. Training and development tended to emphasize the immediate organizational necessities in terms of job roles. As noted by Fuller and Unwin (2004) training in restrictive environments tend to be limited and also in response to external regulatory requirements. This was the case in Colleges A and C.

In Colleges A and B opportunities are provided for teachers to learn but reducing these to just a few days a year makes them one-off events. Although teachers were previously told what to attend and more recently they were given some choice this still does not make the environments expansive. The fact that the choices are predetermined may not meet the needs of some teachers, especially as the non-ICT teachers are at different levels in their knowledge of ICT which further

points towards a more restrictive environment operating in the Colleges A and C. This is not to suggest that any organisation should not have control but rather that the training needs must be shared to reach a common agreement if teachers are to successfully adopt ICT to ensure effective delivery and meet national policy demands. Expansive environments allow the workers greater control, discretion and autonomy over their own learning.

Fuller et al. (2007) found that restrictive environment are characterised by lack of opportunity for external training opportunities whereas expansive environments create such opportunities to give employees new ways of thinking and working. In the Colleges under study there are no opportunities for external training. Expansive environments, on the other hand, promote flexibility to allow the necessary time to learn, reflect critically on their current practices to improve future practices. Squeezing in additional training on a Wednesday afternoon when many staff may be thinking about their evening teaching responsibilities again suggests that the Colleges operate restrictive environment because the process fails to give the learners (teachers) time to reflect. Expansive environments promote learning because they acknowledge that the worker is also a learner. In recognition of this, the worker is given time off to attend training courses or intelligent adjustments are made to the working schedule to permit professional development. The failure of the SDOs to know what training teachers have had, the belief that teachers should keep their own CPD records and the reliance of observation reports combined with some of the negative attitudes expressed again suggests that teachers have little control in such restrictive environments. Expansive learning environments foster learning because they promote the sharing of needs, knowledge generation and expertise, making skills development more meaningful. Negative attitudes expressed by the TSS suggest that they are not supported as their needs are not being met either. Managers need to consider imaginative ways to support staff.

Villeneuve-Smith et al. (2009) stress that strategic approach to CPD is not just something that senior management sign off but something thing that is actively managed to direct continuous improvements in the performance of all staff. Consequently, they suggest that a good model would be that of distributed leadership for effective CPD. They explain that a distributive model moves away from the traditional model in which budget holders such as the SDOs make decisions on who or what the CDP budget is spent on to one in a wider range of people in senior and middle management positions who then discuss development needs with the teachers. This would empower individual teachers to take personal responsibility for their own learning and give them a say in their own development. This would then move CPD from a strategy for compliance to a strategy for promoting opportunities.

The findings support the view by Unwin and Lucas (2009) that policy makers and policy agencies have failed to take account of the way that teachers develop knowledge in the reforms affecting teachers in FE colleges. They argue that a fundamental review of the roles and responsibilities of FE teachers are needed to take account of the way that teacher learning is context-based, reflecting its situated nature and that college management need to recognise this and see the workplace as a learning environment. For Unwin and Lucas the recognition of these factors would lead to a change in culture, making for more expansive learning environment. Ultimately, this would benefit not just staff but also students.

7.12 Conclusion

Support for non-ICT teachers is absolutely crucial. The current procedures in Colleges A and C in providing ICT-related training, monitoring progress and providing follow-up sessions need to be reviewed. Identifying the ICT training needs of non-ICT teachers is a serious concern and requires urgent action. Relying on a single way of collecting non-ICT teachers' ICT training needs is not enough. Multiple approaches are required to collect this essential information. More importantly, teachers' ICT needs should be identified in collaboration between those offering the

training and the teachers who require the training. Communication between teachers, SDOs and management needs to be reviewed. The current top-down approach to staff development has not worked when it comes to providing and meeting ICT training needs, neither has providing yearly pockets of training sessions.

Research on expansive – restrictive framework shows that while College B has some elements of an expansive culture, the reality is all three Colleges need to move more towards this goal. This would involve developing and valuing the current skills of the staff, enabling them to have a say in their own needs, encouraging them to develop new and relevant skills, providing flexible ways for them to learn and giving them the time to do so. It requires managers to move from controllers to facilitators to make training and CPD purposeful. Training and CPD must be supported with incentives and recognition. Two final points must be made; firstly, confidence in using ICT comes with access and opportunity. Secondly, those teachers who do use ICT effectively in their teaching should be recognised as valuable assets to the organisation and offered the opportunity to disseminate their ideas and expertise to others who may lack the necessary ICT skills, confidence and technical know-how to teach using ICT. Learning from one another is a part of situated learning which is discussed more in Question 4 as part of the findings.

Findings and discussion: Institutional and personal factors affecting non-ICT teachers using ICT

CHAPTER 8

"Let the main object be to seek and to find a method of instruction, by which teachers may teach less, but learners learn more."

Jan Amos Comenius, (1592-1670, Czech Educator and Writer)
Source: www.docstoc.com (2009)

8.0 Question 4: What personal and institutional factors affect non-ICT teaching staff using ICT in teaching?

8.1 Introduction

The chapter addresses the final question of this research study and presents the views of non-ICT teaching staff on the institutional and personal factors affecting their use of ICT at the three London FE Colleges. To explore the answers to this question the chapter begins by discussing the views of non-ICT teachers on the benefits of ICT and their attitudes to using it. It then considers some of the general institutional factors that act as barriers in integrating ICT, such as the available software programs and the software resources, personal access to technology and systems break-downs. The chapter then considers the personal factors that promote or hinder the use of ICT. These include reluctance, fear, anxiety, motivation and confidence. The rest of the chapter explores the view that teachers are resistant to change, then discusses their attitudes towards current ICT training and explores their training needs. The views of teachers are compared to those of SDOs where appropriate. The chapter links the finding to the concept of situated learning.

8.2 Making sense of ICT – the benefits

In chapter three we saw some of the benefits that ICT has to offer. Research shows that many teachers are very aware of the potential of ICT to make learning more enjoyable and more interactive. Teachers are also aware that technology has an important role in creating and renewing interest in learning for those who have become disaffected for whatever

reason (Walker and Logan, 2009). Most teachers use ICT in their everyday lives at home or at work. Although teachers may have computers at home, it does not mean that they would automatically use them in their educational institution (Totter et al., 2006).This suggests that in a teaching context the extent ICT is used varies according to the role of the teacher and subject taught. The use of ICT in staff rooms and classrooms requires different levels of knowledge, competence and confidence. Wright and Vongalis Macrow (2006) stress that every teacher looks at technology from their own perspective to consider the impact on students' learning which then influences the decision to use it, as well as their personal motivation to integrate it into teaching. Teachers also consider the impact on their workload, their time and their present skills and knowledge. This strongly suggests that many teachers do not simply make the decision to use or not to use technology but rather evaluate whether the required input for a particular subject or lesson is worth the output. For other teachers the use of technology in the classroom, beyond word-processing of assignments or using the Internet for research activities, may remain a mystery. Wright and Vongalis Macrow (2006) argue that once teachers understand technology it can change the way they learn and teach. Those teachers who do not realize the importance and the advantages of ICT are less likely to make use of it. The views of the teachers on the benefits of ICT in the three Colleges under study are discussed next.

8.3 Benefits of ICT: non-ICT teachers' views

The 31 participants in this study were asked about the benefits of using ICT in their teaching. One teacher in College C said:

> *"Yes, well it gives the students a focus. It's not interesting looking at transparencies or listening to a lecturer."* [C4]

The above teacher showed an awareness of the benefits of using ICT both for herself and for her students. She also recognised that old technology such as transparencies was outdated and accepted the potential of ICT to motivate and engage her learners.

The following two participants were very adamant that ICT had a major role in education.

> *"It reduces your paper work, that's one good thing, generating slides and handouts. So you can use it over and over again."* [B1]

> *"Well, it saves on photocopying. I can give them (students) on-line questions and they can go and do them."* [A5]

Participant B1 suggested that using ICT saved him time and once developed, ICT-related materials could be re-used. Participants A5 and B1's also shared the view that ICT saved the user time with the added benefit of including the college Virtual Learning Environment (VLE) and the Internet as a medium for teaching and learning. Participant A5 was very confident that ICT was useful for him and that it was keeping his students engaged not only in the classroom but also outside it by getting them to tackle pre-prepared questions anytime and anywhere using the Internet and the College VLE.

Cox et al. (1999) noted that integrating ICT helps to make lessons more enjoyable, interesting, diverse and motivating for students than traditional modes of learning. The following two statements also refer to the direct benefits of ICT for students. The first participant stated:

> *"In terms of accounting and finance it certainly helps the students to analyse their data and present their own answers by using templates and things like that. It is obviously quicker to store it, present it, but I think for my subjects the key thing is use of tables to organise data."* [B2]

The above participant also commented that when students handed their assignment in for assessment, their clear presentation made it easier to mark their work. Another participant (smiling with enthusiasm) also agreed that her students enjoyed using ICT and that it was captivating for them. She said:

> *"It holds their interest. It's another medium, they (students) are used to it. It can be entertaining but I don't think we should get away from students having to study words and writing in front of them."* [A2]

However, despite recognising the usefulness and benefits of ICT, A2 warned us that students should also have the opportunity to study using traditional methods such as textbooks, pen and paper rather than just rely on ICT. She was adamant that her students should not depend solely on technology due to systems failure. She also stated that for every hour of teaching she did, an equal amount of time was taken up in ensuring that the subject-related research and preparation of teaching materials, such as worksheets, slides, handouts and classroom activities, were suitable for delivery using ICT. It is true that initially developing ICT-related materials can be time consuming but once developed they can be used again and again thus saving time and effort. The following participants also saw the benefits of using ICT.

> *"It certainly makes the whole learning experience for students more interesting."* [C3]

> *"An opportunity to give students a different environment and a different perspective. It's not just chalk and talk."* [C6]

> *"I could not imagine not using ICT."* [B2]

From the interviews, participants were generally very positive towards the use of ICT in their teaching. Some clearly preferred to use a combination of traditional teaching methods as well as ICT technologies. However, other participants were cautions of ICT. One participant said:

> *"It encourages students to chat (on-line), we can't necessarily see what the students are doing. They are on a chat line, you don't necessarily know, you go around, the screen is switched, then you realise they are not working."* [C2]

The above comment shows the difficulty in always monitoring what students are doing on their computers to ensure they stay on task. Another participant from College A noted that one of the biggest disadvantages of ICT was that students were becoming too reliant on it. She felt that the use of ICT does not help to deal with students who have a lower level of

understanding or have language differences which then mean providing further support, which requires a modified use of ICT.

Technology should be a tool to support academic learning not a substitute. For example, students who are totally reliant on their PCs or laptops for word processing may eventually lose their handwriting skills due to lack of use. The use of ICT also raises the question of whether those students who make extensive use of ICT are then disadvantaged in written examinations (Pittard, 2004). Jackson (2005) in her initial findings of her PhD study suggests that some teachers feel that learners' ability to analyse and synthesise information is deteriorating as they rely upon 'cutting and pasting' information into essays without absorbing the subject content. There is also the issue that students have become so reliant on the Internet that the potential for plagiarism becomes a real problem which then presents dilemmas for the teacher. The recreational activities created by technology can distract students such as the instant messaging services, games or unsavoury sites. Generally, teachers value ICT and believe that it has many benefits. This is a good starting point for integration, but being able to use the different types of software is also essential.

8.4 Patterns of use of ICT-related software

In order to establish what software the non-ICT teachers knew and used, they were asked to complete a questionnaire to indicate what programs they frequently used, sometimes used or never used in their professional practice. Some of the results were not very surprising, for example that there was a 100 per cent usage of word-processing, emails and PowerPoint presentations. These are common software programs most teachers would use in their teaching. Out of the 31 teachers involved in the study, 97 per cent used the Internet to research or to prepare teaching materials. Only one participant (3%) claimed that he never used a web browser. This result was rather puzzling as the participant indicated that he used email. It could mean that this person has never used the Internet to access resources or

emails. Today not using a web browser seems highly unlikely and it could mean that the participant did not fully understand the term 'web browser'. Please refer to Table 8 which lists the frequency of use of the various software programs.

Type of software	Frequently used	Sometimes used	Never used
Word processing	**31** (100%)	**0** (0.00%)	**0** (0.00%)
Spreadsheets	**5** (16.12%)	**13** (41.93%)	**13** (41.93%)
Database	**2** (6.45%)	**18** (58.06%)	**11** (35.48%)
Graphics (Photoshop, Coral Draw)	**0** (0.00%)	**10** (32.25%)	**21** (67.74%)
PowerPoint for presentation	**17** (54.83%)	**14** (45.16%)	**0** (0.00%)
Email (MS Outlook, Yahoo, Hotmail)	**30** (96.77%)	**1** (3.22%)	**0** (0.00%)
Web Browsers such as Netscape, Explorer	**24** (77.41%)	**6** (19.35%)	**1** (3.22%)
Programming (Visual Basic, C++)	**0** (0.00%)	**1** (3.22%)	**30** (96.77%)
Desktop Publishing - Publisher	**4** (12.90%)	**15** (48.38%)	**12** (16.12%)
CD ROM's	**10** (32.25%)	**10** (32.25%)	**11** (35.48%)
Specialised software in your subject area	**6** (19.35%)	**12** (16.12%)	**13** (41.41%)
Social Networking sites (Youtube, Twitter, Facebook)	**1** (3.22%)	**12** (16.12%)	**18** (58.06%)

Table 8: Patterns of ICT-related software usage (n=31) [Source: questionnaire]

Those that were sometimes or never used include social networking sites (Youtube, Twitter or Facebook). These sites are very popular with students but fewer than 50 per cent of participants used them. Interestingly, teachers may have to change this view as the *IfL Review of CPD* (2010) announced that it would promote the use of social media sites such as Twitter and Facebook as a way of developing and sharing effective CPD for teachers. Programming software was only included in the questionnaire to explore teachers' range of expertise in ICT. The low usage of this facility was not particularly surprising as it requires extensive training and knowledge to use it effectively. The declared lack of use of other software programs could be because teachers do not perceive them to be useful or do not know how to use them. While the findings here relate to the Schools of Business, the integrating of ICT does not only reflect differences between FE colleges but also differences within them. For example, different departments give different levels of priority to integrating ICT so it was not unified across colleges (Finlayson et al., 2006). The *IfL Review of CPD* (2010) noted that although there was an increase in the use of technology in teaching and learning, just under half of FE teachers were still uncomfortable with using of technology to engage and motivate students. There is a strong case for departments sharing

information on how they use ICT. In policy there is much talk about integrating ICT but too little is mentioned about the actual pedagogy of integrating it (Koo, 2008). The IfL CPD Review recommended building teachers' confidence by working with other teachers who were more proficient in using ICT who could then share their experiences and practices and also provide support.

8.5 Lack of appropriate software resources for teaching and learning

A number of teachers interviewed pointed out that the current software was limited in its ability to support their subject areas. They expressed difficulty in obtaining high-quality interactive learning materials for their students and those that were available could not be easily modified to meet their needs. This created added pressure to make use of something that was not really useful for them. ICT-related resources are a rare commodity in Colleges A and C. In Colleges A and C, most of the teaching resources had to be prepared by subject teachers. Many complained about the amount of time they needed to invest in producing them. Over 80 per cent of the participants said that they would spend hours looking through textbooks, researching on the Internet of subject-related materials or produce their own materials to use in their lessons. One participant in College C said:

> *"What we do is, we have to beg for resources."* [A4]

He further said that the College was happy to buy resources for other schools such as Computing, because that particular school was seen as more of a priority than Business Studies. I was informed by a number of teachers that there were business studies related resources available for free on the Internet and I was then promptly reminded,

> "*Where is the time to find it on the Internet?*", "*Whose work is it and is it reliable?"* [A4]

The situation in College B is very different. They had made significant investments in buying pre-prepared teaching resources. The teachers in the School of Business used these resources to enhance their students' learning. It is available in the form of a CD-ROM with

business-related topics and the files can be copied to students' work areas or printed as hardcopy. More importantly, these resources allow teachers to save a huge amount of time especially in teaching preparation. None of the SDOs in the three Colleges were aware what teaching resources non-ICT teachers were using. The SDO in College C said,

> *"I don't know what access to resources that they (teachers) have. There is no resource bank that I know of."*

The above SDO was correct that there was no ICT-related resource bank for non-ICT teachers to refer to. However, given the situation, there is an urgency to support non-ICT teachers to use ICT, share ICT-related resources and also good working practice because as Rowland (2000) notes lack of access to ICT resources prevents the effective use of ICT. New Labour recognised this. In its document, *Towards a Unified e-Learning Strategy* (DfES, 2003), it highlighted the importance of developing e-learning resources in conjunction with teachers and allowing them to lead the creative design as they are the end users along with students. It was recognised that commercial suppliers do involve teachers but warned that a closer partnership was required if the products were to be widely used and to prove profitable. Software is part of the problem but access to personal computers also presented a problem as the next section shows.

8.6 Personal access to ICT-related equipment

A major factor in promoting the use of ICT in teaching is having adequate personal access. According to the Heads of Schools in all three colleges, there were no teachers without access to computers. However, the study found that in College A, a number of part-time and visiting teachers were required to share computers, something they were not comfortable with. One part-time teacher in College C said,

> *"Access to a computer would be of great help to start with, I wouldn't have to keep sharing with other people."* [C5]

In both Colleges A and C a number of part-time teachers complained that sharing computers made their work very difficult as they had to wait to check their e-mails, access

the Internet or prepare for the next lesson. They were not complaining that they did not have access to computers but were upset about the degree of access given to them. This caused some to work more at home.

8.7 Access to computers at home

All the teachers in the study had access to computers at home and overwhelmingly agreed that these computers were more up to date than those in the college. When asked what they mainly used them for, over 74 per cent of the participants reported that they used them for preparing teaching materials and researching on the Internet for teaching resources, spending an additional four to eight hours a week on this task. A consequence for many of these teachers was an increase in the daily workload and stress levels, which then manifested into resentment towards management. Many teachers felt that the system was unreliable in the staffroom and also in classrooms. This forced them to prepare twice. The table below shows some of the statements that the non-ICT teachers in the three Colleges made with regard to the usage of home computers.

College	Comments
A	*"Mainly for preparation for college work. Research materials, preparing PowerPoint slides. I bring work home. It has always been like that and probably always will."* [A5]
A	*"I don't take any work home which means I work late."* [A2]
B	*"Internet for personal use. For college I use to type up slides."* [B7]
B	*"Teaching purposes, for handouts and college admin work."* [B4]
C	*"Work, email. I take work home, who doesn't?"* [C4]
C	*"For preparing lessons."* [C1]

Table 9: Comments on access to computer at home of teachers

However, a positive side of having a computer at home is that it makes the transition to ICT easier. For example, teachers who have more experience of using ICT in their personal lives tend to be more receptive to the use of ICT because they have a strong understanding of its potential even though they may not use it in the classroom (Sime and Priestley, 2005).

8.8 Systems breakdown

When technology functions properly it is extremely useful but when it breaks down it can have dire consequences A number of teachers in this study were fearful and clearly did not like the idea of relying totally on computers to deliver their teaching. Studies by Bradley and Russell (1997) and Preston et al. (2000), found that recurring technical faults and the expectations that computer systems would fail, reduced confidence levels of teachers making them reluctant to use it in the future. Out of the three Colleges, one teacher in College B said,

> *"The system is the biggest problem. If the system is not working and no access to the website then you have blown your lesson. I can still use plan B, which is paper based. So from time to time the system crashes and the smart board goes. We had a problem in the room (referring to the digital projector) and we had to wait 2 weeks for it to be repaired."* [B4]

For this particular teacher, system breakdown was her biggest barrier. Although the computer systems in her institution were still fairly new, she still felt that they were unreliable. Her experience of using the system had taught her to prepare an alternative plan around paper-based teaching materials, but this added to her normal workload. Another teacher pointed out that:

> *"When a system crashes, there is not much one person can do. We have to phone them (technical support) and sometimes they come straight away, sometimes they don't and you have lost the lesson."* [C1]

He further stated that lesson contact time was limited to one and half hours. When the system broke down, precious time was lost and this had academic consequences for both teacher and students. For the teacher, loss of time here meant that the syllabus would not be covered which impacted on future lessons. For the students, they might lose interest in the subject and more importantly, see their teacher as technically incompetent. This can lead to embarrassment and anxiety on the part of the teacher. Over 70 per cent of the participants interviewed felt uncomfortable calling technical support and complaining about the problems.

A study by Snoeyink and Ertmer (2001) and Korte and Husing (2007) found that school-teachers who were unsuccessful in dealing with technical problems in the classroom would avoid using ICT or related technology for several days. Successful integration of ICT was closely related to the frequency that teachers experienced technical problems within a given period (Sipilä, 2010). These finding could also be true for FE teachers who may become apprehensive about using technology and expanding their ICT capabilities, preferring to stay within a 'safe zone' of using only what they are familiar with instead of experimenting with newer technologies. This view is shared by Cuban et al. (2001) who warn that without adequate technical and management support, only modest use will be made of ICT and that teachers will become skilful at working round the use of ICT to maintain old teaching practices just packaged in new ways. One teacher in College A said,

> *"If the system breaks down I would not know what to do or how to repair it. In terms of staff support, when things go wrong, we only have one staff support on site and so if that person is available.....otherwise everything grinds to a halt."* [A5]

This highlights the importance of technical support as a key link between the ICT equipment and the teacher being able to integrate ICT into the curriculum. Reynolds et al. (2003) found that teachers who had the support of technicians when using ICT in their classes were much more confident and less fearful of not knowing how to resolve issues. This suggests there should not only be an increase in the number of technical support staff but also a stronger working partnership between technical support and academic staff. It should also be noted that when the system breaks down and support is not available, the teachers have to modify the lesson, continue teaching with the added burden of handling students who may be upset and de-motivated at the lack of technical services provided by the College. Students will no doubt complain to their friends and this may deter them from coming to that particular college. One teacher in College C said,

> *"Sometimes we have problems (systems breakdown), the students abuse the machines quite badly."* [C7]

She further explained that when this happens most students get upset because their work would be lost. Some students then become aggressive towards the equipment and complain that the College is unable to meet their basic ICT requirements and that the computers are out of date. Therefore, a preventive technical maintenance schedule should be put in place.

Other problems identified in this study include:

- Slow processor speed. [Colleges A and C]
- Setting up or configuring digital projectors can be a difficult task especially when students are in front of you waiting for the lesson to start. [Colleges A, B and C]
- Automatic updates start appearing without warning on the screen, which can be distracting. [College C].
- Students' using the Internet are distracted from what they are required to do in class. [Colleges A, B and C]
- When opening up a particular file from the Internet, additional software programs are needed for viewing Internet resources (e.g. Javascript, Acrobat reader, Real Player). Unless these are downloaded the original file cannot be opened. [Colleges A, B and C]

7.9 Reluctance, fear and anxiety of ICT

Extensive research relating to reluctance, fear and anxiety of using computer can be attributed to Larner and Timberlake (1995); Selwyn (1997); Fabry and Higgs (1997) and Beggs, (2000). The studies show that these are complex matters and cannot be attributed to a single reason, but rather a combination with much depending on individual personalities. However, some common factors did emerge. Fear of computers was found to stem from concerns about loss of professional status resulting from the increased use of computers which then could remove or downgrade their traditional pedagogical skills and classroom control.

Some of the most common causes of computer anxiety were getting stuck and not knowing what to do next or not understanding the computer jargon and the messages that computers give (Bradley and Russell, 1997). In the three Colleges there are pockets of fear of ICT and technology in general. The SDO in College C said,

> *"I think 50 per cent of the staff are forward thinking, they realise the value of ICT and are happy to take it forward. I also think there is 25 per cent who are fearful of it and have been teaching for quite a long time and are not used to technology. So they (teachers) are scared of these things, they are reluctant to come forward and the remainder are apathetic about it because they are being made to do it. There is resistance ..... ."*

This sentiment seems to be shared by the SDO in College A, when he said,

> *"To support them (teachers) to lose their fear factor, the present system doesn't allow staff to do their jobs properly."*

He further stated that this fear factor was a dual problem. On the one hand, financial constraints prevented additional training being offered outside annual staff development events and, on the other hand, teaching timetables are so full that it would be extremely difficult for staff to attend training sessions without cancelling classes. For these reasons, the fear factor for these teachers will continue and possibly increase as newer technologies enter the teaching and learning arena.

Anxiety proved to be the strongest negative correlation with computer use among teachers with limited ICT knowledge. Teachers who did not use computers regularly and therefore lacked mastery, tended to be more fearful, suffered from computer anxiety (Wilson, 1999). Wilson further suggested that by learning some basic knowledge about computers, anxiety could be eliminated. Tezci (2009) believes that if teachers have a high level of ICT knowledge, then there will be a higher level of ICT use in education. Therefore, relevant ICT knowledge can reduce fear and anxiety and those with knowledge may be less reluctant to use ICT.

8.10 Motivation and confidence to take up ICT

Motivation cannot be seen as an isolated barrier but related to other crucial factors such as attitude, belief and confidence, which play an important role in the motivational process. Fullan (1991) found that the motivation of teachers towards computer use can be influenced by the expectation that it will contribute to their own learning, their previous

experiences of using ICT and also their level of expertise in using it. Cox et al. (1999); Lam (2000) and Cole (2004) all agree that one of the most significant factors that related positively with the energetic use of ICT was an individual's perceived ability and level of confidence. Fisher (1999) and Tezci (2009) found that teachers' attitudes were strongly related to their success in using technology. Teachers with little or no confidence in using computers will try to avoid using them (Dawes, 2000). The SDO at College A suggested that many non-ICT teachers lacked personal motivation when he said,

> *"Training is put on but there has been low take up. There's been training enough to support all of the teachers that has not yet gone through (training) and we still have a deficit of staff that haven't gone on the training."*

The above statement does not take into account that teachers have busy teaching timetable and associated commitments which may prevent ICT training from being seen as a priority. Training schedules need to be organised with the cooperation and collaboration of the teachers. When asked what the College did to motivate non-ICT teachers to use ICT in their teaching, the SDO in College B said,

> *"That's the real challenge, getting these teachers to engage and show them the benefits of it. Really, it's about enticing them to using technology. It's about confidence issues and once their confidence level rises then they tend to say yes that technology is good."*

The successful implementation of educational technologies depended very much on the attitudes of teachers (Kersaint et al., 2003). They also found that teachers' positive attitudes towards ICT enabled them to feel more comfortable incorporating it. Woodrow (1992) and Bullock (2004) also found this to be true. To fully understand why some teachers are motivated while others are not requires an understanding of what factors actually do motivate them. This is discussed below.

8.11 Motivation and confidence in taking up ICT: Views of teachers

Participants in the Colleges were asked, 'What would motivate you to take on ICT'? In College B one participant said:

"Well, if I was offered relevant training and things were more organized." [B7].

The above participant was motivated to use ICT but her statement suggests that the problem was related to the current ICT training offered which was not relevant to her needs. She further added:

> *"Better time of the year. I need more development and practice time. Maybe work in groups and share the burden and ideas and practice together. Developing ICT with a team would be useful."* [B7]

The above participant would be more motivated if there was an opportunity for her to share and practice ideas with others, rather than working in isolation. The table below shows some of the views of other participants involved in this study.

College	Comments
A	*"I don't think I need to be motivated further. I think I am motivated. I lack direction; I would like someone to direct me."*
A	*"Better training and get a certificate."*
B	*"I think technology is part and parcel of the world that we live in now. So that would be my motivator."*
B	*"Already motivated."*
C	*"I have to acknowledge at this stage that it doesn't."*
C	*"Pay. Some information would be useful."*

Table 10: Views of teachers on motivation to use ICT in their role.

8.12 Teachers: do your students know more than you about ICT?

Fear and embarrassment can act as a motivational force. When answering this particular question a number of teachers felt a little apprehensive and many of them paused before responding. One teacher in College B said,

> *"It is quite difficult for members of staff, they will feel challenged by their students, if their level of skills is lower than the student....then (students may say) who are you to tell me? ....who are you to teach me? It is a big problem."* [B10]

The table below shows that more than 48 per cent of the teachers interviewed said that their students knew more about ICT than they did.

College	Yes	No
A	6 (19.3%)	6 (19.3%)
B	3 (9.6%)	7 (22.6%)
C	6 (19.3%)	3 (9.6%)
Total	15 (**48.2%**)	16 (**51.5%**)

Table 11: Do your students know more ICT than you?

Another teacher in College A also agreed that students knew more and said:

> *"Almost definitely because they are very familiar with computing. Well, I suppose partly they are young students, they will have computers at home and they work with each other and they play around on the computer all the time. It's a good tool for them. (They were) taught in schools and expect better in FE."* [A11]

College	Comments
A	*"Certainly in the form of text messaging that kind of communications they are way ahead of me."* [A11]
A	*"I don't see that as a threat. I am happy to say it's not my strength. Bear with me if I can use it."* [A1]
B	*"Undoubtedly, from a technical capability, they are leagues ahead of me."* [B6]
B	*"If anything happens I often wonder around and ask other students. There is usually I bright spark."* [B4]
C	*"I used to feel extremely embarrassed. I thought I can't do much about it so I just grin and bare it. Sometimes it comes in handy if the students do know, but there is always a certain amount of embarrassment."* [C6]
C	*"I think in terms of using the computers, they are streets ahead of me."* [C9]

Table 12: Comments by non-ICT teachers

The above statements show that students are more technologically able and more knowledgeable about software programs and gadgets. The following participant in College B was overjoyed at the fact she could ask them for help. She saw her students as partners sharing knowledge when it comes to technology. When asked if her students knew more about technology than she did, she replied:

> *"Oh yes, definitely. They do fantastic presentations. I am confident enough to say to them, I hope you are going to teach me."* [B5]

She also added that she was less confident asking her younger students for help because they expected to be taught and not the other way around. Teachers will need to become comfortable with the use of technology and close the confidence gap. Some would argue that teachers are resistant to using ICT, but is it so simple?

8.13 ***Resistance to change***

Fullan (1991) suggests that educational change depended on what teachers did and thought and that it was as simple and as complex as that. Resistance to change occurs when traditional assumptions and values are challenged (Wetzel, 2001). This indicates that the

ideal situation for change must be to understand teachers' beliefs and to work collaboratively towards a shared vision which can make significant change a reality (Joyace and Showers, 1988; Webb and Cox, 2004). Top-down implementation of technology may cause resentment among teachers as it tend to isolate them (Lam, 2000) whereas a bottom-up approach with a top-down implementation strategies would include teachers and make them feel valued (Hopkins, 1992).

In order for change to take place all the key players in the educational arena need to acknowledge that the new technologies have changed the relationship between teacher and students (Selinger, 2001). Developing a vision for the use of ICT in teaching and learning must be led by management but in collaboration with teachers (Bates, 2000). Bates also argues that the process of visioning should be completed at different levels, starting at the departmental level where the actual teaching occurs. I agree with Bates and believe that the Schools identified in this study would benefit much more if their management worked in direct collaboration with the non-ICT teachers in identifying their needs. The 'voice' of the teachers must be heard because it is only through their commitment and actions that there will be positive change. Management must understand that educational change is a process and not an event (Hall and Hord, 2001; Rogers 2003). Therefore, in order for change to succeed, management must explore the processes involved in the change and hear the concerns of teachers. One SDO in College A said,

> *"A small percentage of staff don't want to engage with technology and don't feel that it enhances their teaching and learning."*

The above statement is, of course, a cause for concern, however, it is important to identify why a particular individual refuses to engage in the process of change. To bring about positive change there must be a clear understanding of its purpose and the processes involved. For example, Schon (1971) stated that change is about "passing through the zones of uncertainty" (p.12) and Fisher (1984) considered that change in one's environment

meant loss of control, which may result in stress. Fullan (1998) went even further and suggested that when you ask someone to change, they feel that you are saying that there is something wrong with what they are doing. This is probably because, on the one hand change implies experiment and the creation of something new and, on the other hand, it means discontinuity of familiar structures and relationships (Huczynski and Buchanan, 2001). Laurillard, (2008b) reminds us that the recent history of technology in education however good it has been and is, it achieves little without the human intervention. Therefore, in order for change to be successful in the three Colleges, the management must address the concerns of teachers, their emotional engagement with ICT and empower them to make the necessary changes. Management also need to remember that teachers will only willingly adopt new technology when they understand how it helps them directly to improve their current practice. This supported by other studies. For example, Finlayson et al. (2006) found that teachers in FE colleges tended to lack the necessary skills to incorporate ICT in their teaching but demonstrated a willingness to do so when provided of examples of it could be used. This study found little or no evidence of resistance to the integration of technological changes in the three Colleges. The data gathered point to lack of communication between management and teachers. Teachers expected support and the opportunity to voice their concerns.

8.14 Time to integrate ICT

Research indicates that time is one of the biggest single factors hindering teachers taking up ICT (Fabry and Higgs 1997; Scrimshaw, 2004). Without the time to learn new technology and to integrate it into the curriculum; teachers are less likely to make full use of it (Bauer and Kenton, 2005; Totter et al., 2006: Bingimlas, 2009). All the participants were very concerned that there was insufficient time to integrate ICT into their teaching, attend training or develop their personal knowledge. They highlighted the vast range of academic responsibilities FE teachers have, including teaching, pastoral support, course

management, interviewing students, marketing, liaising with external bodies. The majority referred to the enormous teaching and administrative workloads so personal and professional development often remained outstanding tasks on the teachers' 'to do' list. All teachers made it clear that there was no possibility of remission on timetables for professional development.

According to the most of the interviewees, time is a rare commodity with FE teachers so much so that they are forced to take work home for completion. The current climate of getting teachers to do more in the interest of making them more productive makes them time poor. One SDO in College A agreed that time was a problem,

> *"Teaching staff are generally pushed in any organisation. You will find that they are generally pushed for time."*

A teacher in College C noted the potential of ICT and said:

> *"Time has reduced in changing and amending (teaching materials) year to year, modifying rather than doing it all over again."* [C8]

However, another teacher in College A disagreed that using ICT saved time. She stated that newer technologies were regularly coming out and asked where the time was to learn them. She further stated,

> *"It's the keeping up with it (ICT) and the investment of time. I like doing it but it has to be remembered that it adds to the lecturers workload, it does not decrease it."* [A6]

The following participant seemed tired and looked exhausted. She complained that she had a vast amount of administrative tasks to perform. She did use a computer but she felt that she was very slow. She had given up writing anything by hand as everyone expected neat printed copies of everything. For this teacher the computer was just an electronic typewriter. She further added:

> *"I really don't have much time to practise or to find out about it. I am so over burdened with the admin workload."* [A1]

Cuban et al. (2001) believe that some teachers have to work longer hours in order to use ICT successfully and are paying the price in exhaustion for their dedication. Another teacher in College B also felt the same way about teaching commitments and stated:

> *"Time, there is very little time to develop in any way. Pushing out a huge timetable for lectures all week. Then there is marking and preparation. (ICT) development is not happening. The real need is more time to prepare these resources."* [B9]

Other participants shared similar views suggesting that there was not enough time to do the current job of being a teacher, let alone to integrate ICT. Significant time is required to prepare accurate ICT materials for use by students with a range of abilities (Preston et al., 2000). The diverse nature of FE means that it has many such students. To successfully use ICT takes time. Time must be made available to teachers so they develop the appropriate skills, explore how to incorporate ICT into their existing classroom practices and lesson planning if it is to be used effectively (Trucano, 2005). The quotes below shows some of the concerns the other participants in the study had related to time and the integration of ICT.

> *"Funnily enough people think that computers cut the workload, it actually increases the workload. I actually spend more time on preparation than I did previously without computers."* [C1]

> *"Well, I suppose the first barrier would be time because I have a heavy administrative workload."* [B10]

> *The time I spend in producing quality work for students is more. Designing worksheets, quizzes or other teaching materials. I spend more than 8 hours a week."* [A2]

However, with persistence ICT can reduce workloads. Fisser and Van Geloven (2001) suggest that despite their teaching commitments teachers need to find the time for learning. A possible solution to the greater use of ICT is for teachers to see its benefits (Selwood and Pilkington, 2005). Then as teachers more readily adopt technology to improve the quality of their work, the demands on their time begin to reduce (Zhao and Frank, 2003).

Nevertheless, they need time to learn and practice. According to Manternach-Wigans et al. (1999) and Albirini (2006) teachers require time to learn computer basics, explore materials and plan how to integrate and try it out in a classroom setting. The statements below show just how teachers felt about the lack of time to train and to learn.

College	Comments
A	*"There's never any time when you are totally free to learn ICT."* [A12]
A	*"The keeping up with them (students). The lack of time given to prepare in this way and the fact that we are not computer specialists. We've been asked to prepare work, which is more time consuming. It's a double skills that we are being asked for with no time out."* [A5]
B	*"It would be nice if the college gave me some time."* [B7]
C	*"Maybe they could take some hours off my teaching time to allow me to use ICT. To learn it and practice it."* [B7]
C	*"Creating a presentation is very time consuming and you have to be sure that it is going to hold their attention."* [C11]

Table 13: Issues of time – comments by teachers

The issue of time needs to be urgently addressed by management and also the SDOs when planning and delivering ICT training.

8.15 Issues of adequate training: Teachers' views

When asked how much ICT training non-ICT teachers received, one participant in College A said:

> *"You will get an hour where someone will show you for example smart board or blackboard or Moodle. You are just left on your own afterwards. These staff development days are usually tagged onto a holiday, so at the end of the holiday you tend to forget what you learnt and so it goes on."* [A10]

The above participant clearly did not find the training sessions particularly useful. She admitted that afterwards she felt isolated as there was no one for her to discuss what she had learnt or how to use it in her classroom. She also suggested that this was a general pattern over a number of years without change. Offering isolated training sessions several times a year is insufficient and may explain why the integration of ICT at this particular College is taking so long. Similar problems related to the delivery of ICT training sessions could be seen in College C where one participant stated:

> *"ICT training should be on-going. What's happening is ...people are made to do training in Admin week. ICT training should be done when lessons are cancelled. There is no time for lecturers to use ICT. Also lecturers have too much hours. That's why lecturers don't have time to make better use of ICT."* [C7]

The above participant referred to two important issues. First, that the timing of training was not appropriate due to administrative commitments at the start of the summer holidays. Second, that such a full timetable did not allow for additional professional development. Providing training sessions that overload and overwhelm teachers is unrealistic even futile (Haydn and Barton, 2008). A fuller description of the barriers identified in the three Colleges is provided in appendix H.

7.16 How satisfied are you with the training at your college?

In the questionnaire the participants were asked to score how satisfied they were with their current training on a scale of 1 to 5 with 1 being the highest level of satisfaction and 5 being the lowest level of satisfaction. The results for the 31 teachers in the three Colleges are shown in the table below. Both College A and C scores indicate that they are dissatisfied with their training, whereas, College B shows a slightly better score where we can see many 2's and 3's.

College A Participants	Score	College B Participants	Score	College C Participants	Score
A1	5	B1	4	C1	3
A2	5	B2	4	C2	4
A3	5	B3	5	C3	5
A4	5	B4	2	C4	5
A5	4	B5	3	C5	5
A6	4	B6	2	C6	5
A7	5	B7	2	C7	5
A8	4	B8	2	C8	4
A9	4	B9	2	C9	5
A10	5	B10	3	-	-
A11	4	-	-	-	-
A12	4	-	-	-	-

Table 14: Levels of satisfaction related to ICT training in the three colleges

7.16 ICT training needs not being met

Most of the participants from Colleges A and C complained that their training needs were not met. Some teachers in College A said that despite taking their ICT training needs to

their line managers, these were often dismissed or they were told to wait for future available training opportunities. One participant in College C said:

> *"It might be a good idea to send us a questionnaire to ask us what we want and what things we could benefit from. Do a staff survey so that they can get a feel for that. Maybe, this will change the idea of staff development days."* [C2]

The above statement related to the thoughts of all the teachers in Colleges A and C. At present there is no system for identifying the training needs of non-ICT teachers in the Schools of Business. The participants made it clear that most of the training offered to them was generic courses, which were not always suitable. The training did not take into account the variations in the level of knowledge or skill. Most of the teachers complained that they received training not relevant to them and that they were at a loss when it came to integrating ICT in their teaching because they did not know how to go about it. One participant in College C said that teachers joked at the provision offered and saw these training sessions as a waste of time. She further stated:

> *"I find a lot of information not really relevant. It's not pitched at the right level." [C1]*

The following comment (A9) is rather interesting. The participant stated that his College did not meet his training needs but that he relied on two different sources to help him with his ICT requirements. The first source was a close colleague who was familiar with using ICT and the second was his students. He also commented that he did not feel uncomfortable in asking his students for help.

> *"My ICT training needs are met on an ad hoc basis. I heavily depend on a colleague who is very accommodating and allows me to pester him left, right and centre whenever I get stuck. I have also learnt a lot from my students."* [A9]

In all three Colleges, there were a number of teachers who were tired of waiting and decided to teach themselves instead. One participant in College A said:

> *"If you have an individual problem there isn't time to help you. There is no individual attention. So, a lot of the stuff I learnt by myself on the computer at the college or at home."* [A12]

When prompted further, the above participant made it clear that her requests for help were often ignored. Participant C1 was also unhappy and was forced to ask the people around her for help. When asked how much training had she had received related to ICT, she said:

> *"Not very much at all. I need more training. Most of it is done on my own. People ask me how do you use that? I say that I trained myself." [C7]*

Some teachers have taken the initiative to train themselves (see table 15 below) but Kirkwood et al. (2000) provide a light warning that expecting teachers to train in their own time can cause a slow uptake in the training of ICT.

Software	College Training	Self Taught	Never Learnt
Word processing	18 (58.06%)	**11 (35.48%)**	0 (0.00%)
Spreadsheets	9 (29.03%)	**20 (64.51%)**	2 (6.45%)
Database	6 (19.35%)	**8 (25.80%)**	14 (45.16%)
Graphics (Photoshop, Coral Draw)	6 (19.36%)	3 (9.67%)	22 (70.96%)
PowerPoint for presentation	25 (80.64%)	**6 (19.35%)**	0 (0.00%)
Email (MS Outlook, Yahoo, Hotmail)	17 (54.83%)	**14 (45.16%)**	0 (0.00%)
Basic PC know how [how it works]	0 (0.00%)	**7 (22.58%)**	24 (77.41%)
Web page design	2 (6.45%)	**1 (3.22%)**	28 (90.32%)
Interactive whiteboard training	24 (77.41%)	**5 (16.12%)**	2 (6.45%)
Web Browsers such as Netscape, Explorer	21 (67.74%)	**4 (12.90%)**	6 (19.35%)
Programming (Visual Basic, C++)	1 (3.22%)	**2 (6.45%)**	28 (90.32%)
Desktop Publishing - Publisher	3 (9.67%)	**6 (19.35%)**	22 (70.96%)
CD ROM's	5 (16.12%)	**21 (67.74%)**	3 (9.67%)
Specialised subject software	2 (6.45%)	**15 (48.38%)**	14 (45.16%)
Virtual Learning Environments (VLE)	12 (38.70%)	**7 (22.58%)**	12 (38.70%)

Table 15: Self-training

In a study by Ragbir-Day et al. (2008) FE teachers expressed frustrations at the expectation that ICT should be used when the necessary training had not been given. These FE teachers reported that the skills they had acquired were picked up along the way which proved to be a slow process and also time consuming. There has been an assumption that teachers will learn to integrate technology but little consideration has been given as to how this might be achieved (Fisher et al., 2006).

8.17 Changes regarding ICT training needs

The participants were also asked what changes they would like to see with regards to their ICT training needs. The diagram below shows that 74 per cent of those interviewed indicated that they wanted more time to learn and absorb ICT fundamentals. A total of 58 per cent of the participants wanted their own personal ICT training schedule, over 51 per cent wanted a follow up session after their ICT training to continue their training and 48 per cent wanted the option to receive external training. These changes will need to be addressed by management if they seriously want to see an increase in the levels of ICT use by non-ICT teachers.

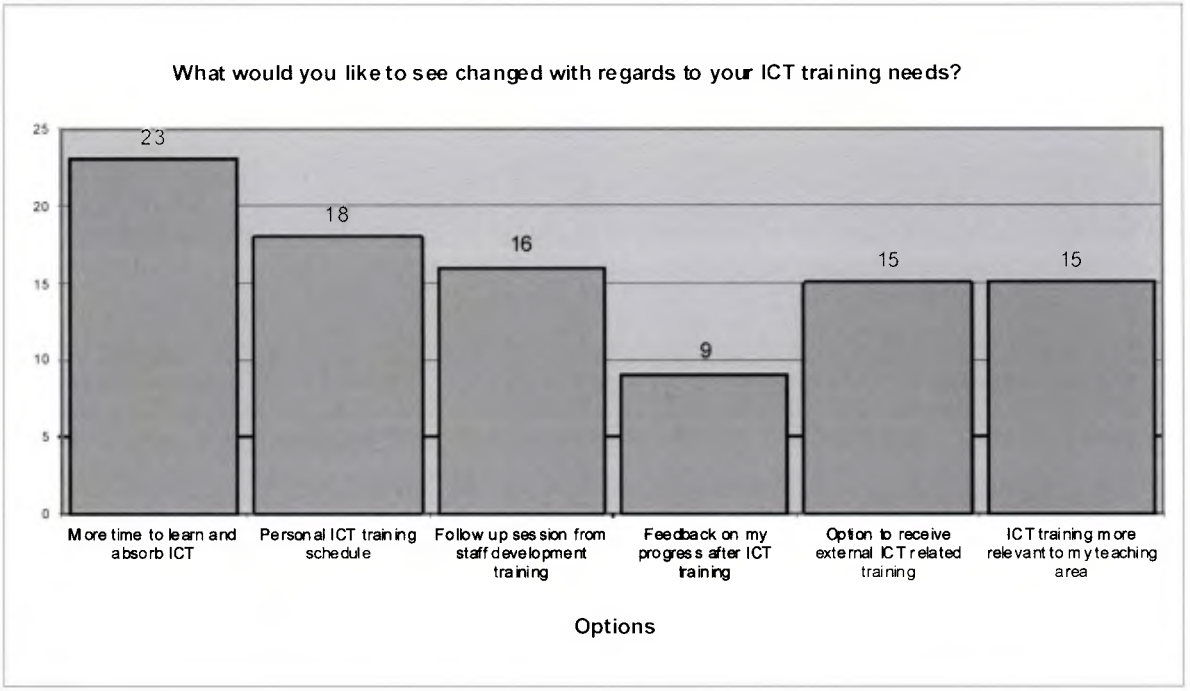

Diagram 6: **Changes required by participants training needs**

7.19 Different types of support required to take up ICT

On the questionnaire a number of support options was provided in order to increase non-ICT teachers' take up of ICT and they were required to select the most appropriate ones. The results in diagram 7 on the following page clearly shows that time was the most sought after support, followed by more training, technical support and be able to discuss ICT-

related ideas with others. The results also indicated that the least sought after support was help from management closely followed by more access to computers.

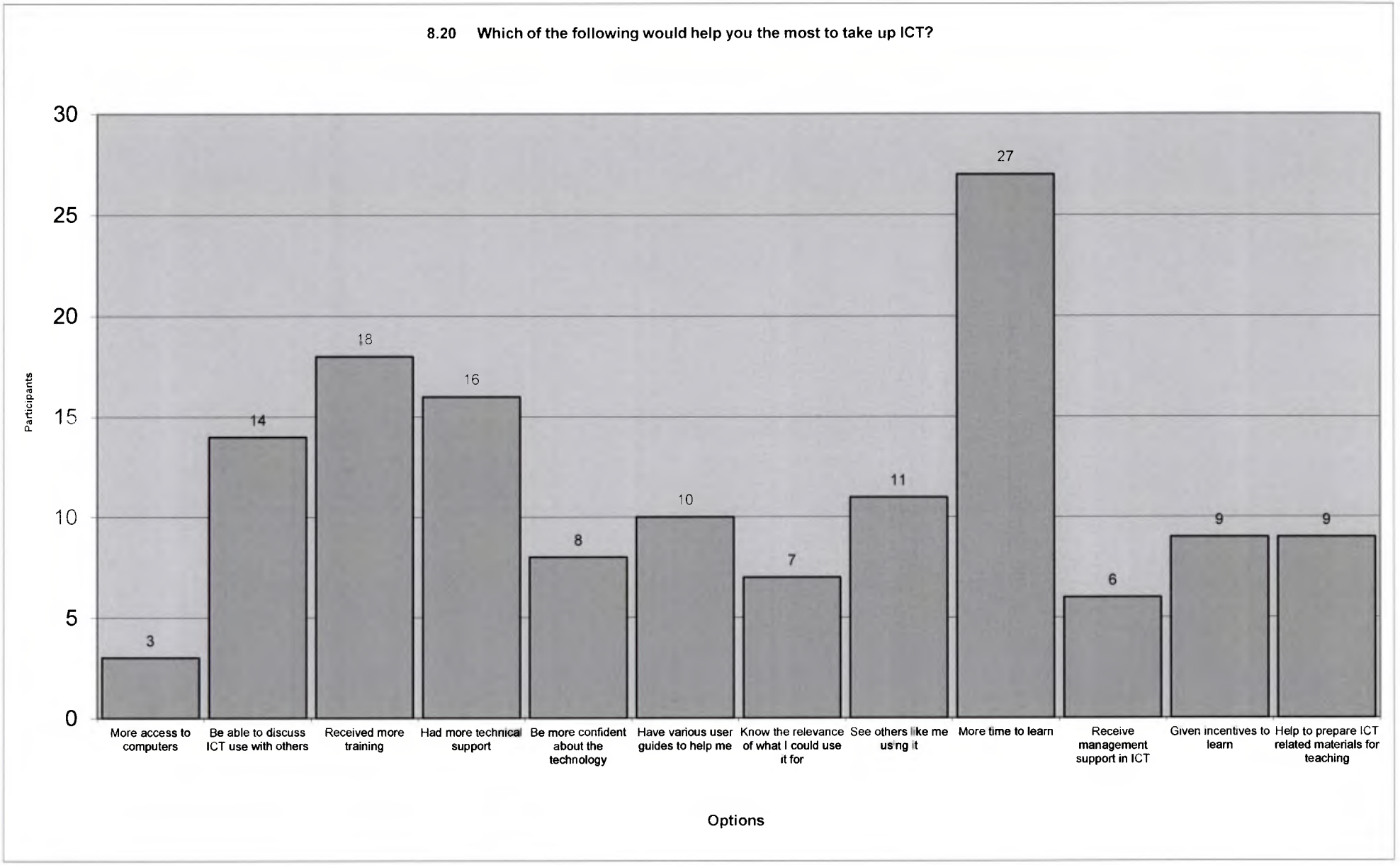

Diagram 7: Most sought after option required by participants

8.21 The stages of ICT integration

Some educators have recognised that becoming ICT competent occurs over a period of time and in stages. It is not achieved by offering a few days staff development a year and then expecting teachers to adopt a DIY approach for the remainder of the year. *Information Communications Technology in Teacher Education – A Planning Guide* (UNESCO, 2002) suggests that it is a process involving several stages. The first stage begins with the teacher becoming aware of the potential of ICT, then learning appropriate ways in which it can be used. It is a necessarily slow process but here it is essential that the teacher is able to make sense of ICT and how it applies to one is own subject area. At this point in time the teachers need support to make use of ICT, practice, adapt its use and reflect on its effectiveness. The final stage means they are competent, able to innovate and model ICT excellence. Krumsvik (2009) refers to this as a mental literacy journey in which the teacher is digitally unaware then they slowly become more digitally aware and finally competent. Krumsvik highlights the important role that colleagues play in guiding and supporting such a journey through the stages of adoption, adaptation, appropriation and innovation.

A study by Schibeci et al. (2008) describes teachers' journeys towards the use of ICT. The initial stage was characterised by high levels of anxiety both in using ICT and the lack of troubleshooting knowledge and skills. Teachers perceived ICT as a burden. This shows that applying technology must be supported by the ability to solve basic technical problems. The progressive stage revealed that as their confidence increased, and the teachers moved from controlling the lesson to using ICT in the role of facilitator, they began to see to see the relevance of ICT and were willing to try new activities to move outside their safe zones or the zones of uncertainty. The final stage demonstrated increasing competence and use, with teachers evaluating ICT materials and contributing to their production. Confidence in

the later stage resulted in a good balance between traditional classroom methods and ICT-rich activities. The importance of building confidence cannot be underestimated. Others also developed a model showing the different stages of how teachers acquire ICT. Kabakçi (2009) referred to these as the emerging stage, the applying stage, the infusing stage and the transformation stage in which they become experts. Teachers use reflection based on their beliefs, what they know and what they learn from their classroom activities, experiences, interactions and reflection which is then applied to future situations to inform professional judgements and classroom practices (Fisher et al., 2006). These observations show that teacher knowledge is dynamic and ever-changing as new knowledge and practices are incorporated into those already held. This demonstrates the situated nature of learning which has implications for training and CPD activities.

8.22 Situating the integration of ICT

The concept of situated learning was introduced in Chapter 1. It is based on the 'socio-cultural' school of psychology and is identified with the work of Lave and Wenger (1991). It sees knowing, understanding and learning as something that is acquired in the context of the situation. Over the last few years there has been renewed interest in the concept. For example, Hodkinson and Hodkinson (2005) argue that much training at work, which includes teachers, is frequently about just the transmission of content knowledge achieving very little because it treats people like empty vessels to be filled. They consider that this approach overlooks the fact that much learning in a work context is actually unplanned and occurs unintentionally, like learning to do something that has not been done before. Situated learning occurs naturally. The learner engages with learning either because the person wants to or needs to or because the situation demands it. It was clear from the findings in the three Colleges that the majority of teachers learnt from others, either colleagues or students. Staff development days appeared to be of less value because they

did not relate directly to their individual classroom lives. The sessions showed them what was possible with ICT but lacked the hands-on experience or practice. In addition, as the staff development sessions did not address the fact that teachers were at different stages of their ICT journey, only those at the skills level of the taught sessions benefitted. Those not at that level probably felt more fearful and perceived such usage of ICT generally to be beyond them, increasing already existing levels of fear and anxiety. Those more competent users were possibly bored because no new learning was taking place and they needed to be challenged to use ICT at a higher level. In both cases such sessions would be demotivating and seen as a compliant waste of time. For the three Colleges it would enable the ticking of CPD activities but would result in little real learning and so not the best use of resources.

Creating opportunities for situated learning would enable teachers to become more actively involved in the process by doing rather than just listening or observing. The ICT stages described earlier recognise that knowledge and use must involve action where the learner becomes immersed in an authentic situation. Situating learning means that classroom practices can change as new practices are applied which then get modified as a result of changing situations or interactions with others (Hodkinson and Hodkinson, 2005). Slowly, the learner moves from novice to expert. However, for this to happen it must be recognised that teachers appear to learn by engaging in a process of questioning which they then interpret in the context of their own teaching situation and its usefulness to their students (Slaouti, 2007). A study on FE by Salisbury et al. (2005) found that teachers' personal knowledge base was shaped and influenced by their own positive and negative experiences as learners, their personal histories and subject specialism which then informed their decisions about suitable teaching strategies. The *IfL Review of CPD* (2010) called for more collaborative learning where people can share experiences and practices by learning from peers. Situated learning is powerful because it is located in professional practice and

promotes collaboration right across the organisation or college. In terms of ICT it would then not be a bolt on but an integrated part of the teaching and learning environments with staff empowered to learn and eager to do so in a supportive environment.

8.23 Conclusion

This chapter identified the many benefits associated with ICT in education. The teachers in the three Colleges also shared these views and showed a good understanding of the potential of ICT to inject life into traditional teaching methods. Interviews with participants showed that despite having positive attitudes towards ICT, some teachers still valued traditional teaching methods to give students a more rounded experience. The chapter explored teachers' use of software. It found that many use a limited number of applications mainly linked to classroom preparation and delivery such as word-processing, PowerPoint and Internet searches. This is consistent with literature that suggests that teachers use computers as a substitute for typewriters. In addition, all teachers at the two of the three Colleges identified the problem of inadequate software for their subject area and the enormous effort required to modify it for use which deterred genuine interest in its potential. Only College B had an acceptable system in place allowing staff to make more substantial use of specialist software which possibly was a result of its links with a university. Lack of appropriate software was identified at a national policy level and seems to still remain an issue. Software was compounded by lack of personal access to computers for some members of staff and systems breakdown for all staff. These institutional problems act as serious barriers to giving staff the confidence to make full use of ICT.

The literature review showed that being aware of the benefits does not mean that teachers can then integrate ICT into their teaching and learning environment. It showed a significant number of personal factors such as confidence, fear and anxiety. Teachers in all three Colleges were affected by these to varying degree which affected their ability to take up

ICT. The study found that training intended to support teachers did not have the intended outcome as it did not meet their real needs because it was not organised with their cooperation or collaboration, signifying a top-down approach. All teachers in the study claimed that they learned more about ICT from students in their classes or other colleagues. This highlighted the fact that the most productive learning for these teachers was situated in their everyday practices. The literature strongly suggests that senior management need to understand the value of situated learning and adopt this approach to improve the CPD offer.

CONCLUSION

CHAPTER 9

> *"Using technology to improve education is not rocket science. It's much, much harder than that."* Diana Laurillard (2008)

9.0 Introduction

This study was intended to understand the reasons why New Labour was determined to introduce ICT into education and also assess whether its policies had any real impact on the use of ICT in teaching and learning in the three FE colleges. The research was initially motivated by my own professional and personal observations of non-ICT teachers struggling to integrate ICT in their everyday practice. This suggested that there clearly seemed to be a gap between New Labour's policies promoting the use of ICT in FE and the reality of what was happening. The study set out to investigate the issues affecting non-ICT teachers as they attempted to integrate ICT in the Schools of Business Studies. The research identified a myriad of factors that acted as barriers. This two-year study was carried out with a view to aiding FE management, Staff Development Officers (SDOs), Technical Support Staff (TSS), policy agencies and more importantly, FE practitioners to support them in their efforts to use and integrate ICT. I was keen not just to identify the problems for academic purposes but also to give them a 'voice' and help them to use and integrate ICT successfully into their teaching and learning. This study provides a 'snapshot' of the current situation in three FE colleges in the South London area.

9.1 Q1. How have national policies contributed to the promotion of ICT in an FE teaching environment?

9.2 The national picture of policy

Polices are the result of a number of possible drivers. Drivers that inform policy creation which could include the fact that something urgently must be done to solve a particular problem such as improving quality and standards. Linked to this could be concerns about remaining competitive in the world markets. Governments identify areas of national concerns or the need for change such as

something beneficial to the economy or society at large. Ideology is also important reflecting the views of a particular political party and also the belief of policy makers. Policy can also be the result of pressure groups such as those with influential and powerful voices in industry. Once created, policy is then formulated based on the attempt to address these needs and concerns. Policy can be seen as on sliding continuum. At one of the continuum are the policy makers who construct the policies which then get passed on to the various policy agencies and the FE colleges further along the continuum. At the other end of the continuum the teachers receive it and implement it which learners being the ultimate receivers through their learning. This might constitute what I would call the 'perfect continuum' with policy formation at one end and policy and practice at the other. However, the policy continuum has obstacles along the way and the implementation process is rarely smooth. FE colleges receive the policy, make sense of it, filter it and then interpret it to suit their individual needs which can then result in internal policies and practices (Trowler, 2007). The literature on skills and ICT showed this process.

9.2.1 New Labour's role in policy creation

This study found that the governments across the globe, including the United Kingdom, recognised that the world has become a competitive marketplace and all nations are determined to bring about economic advantage. The literature revealed that since coming into power New Labour recognized the importance of a highly literate ICT workforce as a way of boosting economic renewal to address the competitive challenge. This was supported by the growth of technology changing in the way people work, live and do business globally. New Labour feared that those citizens without appropriate technological skills would become unemployable in the future. This view was shared by businesses leaders who viewed ICT as vital to their everyday activities and that without workers with the necessary ICT skills businesses would find it difficult to function effectively. New Labour wanted to be seen as pioneers of technology in education and believed that the future of British education should be driven by technology with FE as a key player. New Labour commissioned

many reports that identified the lack of skills at all levels. Although similar findings were also identified under previous successive administrations, New Labour produced a raft of policy documents promoting the skills agenda and ICT. It also took the initiative to invest in ICT at all levels of the education system although one sector at a time. When New Labour finally concentrated on the post-compulsory sector, it made it clear that all FE colleges had to include ICT in their strategic plans to ensure it became part of the teaching and learning environment. The focus on ICT required colleges to develop an ICT infrastructure. New Labour also recognised that for its vision to become a reality it would need to ensure that FE teachers were supported to acquire ICT skills.

9.2.1 The local picture of policy

The findings revealed that national polices focused attention on the important role that Colleges have in building the workforce of the future. The vast number of policy directives from New Labour made it difficult for FE colleges to give due attention to each. Nevertheless, the policies were crucial in forcing colleges to address the ICT agenda. This is supported by the study which shows that all three FE Colleges have their individual strategic plans which detail short-term and long-term goals for ICT infrastructure. All FE colleges were expected to draw up action plans to support the training needs of their staff. New Labour acknowledged that the diverse nature of FE colleges required flexibility in how they developed and implemented their ICT strategies.

9.2.3 Policy implementation

In practical terms, a policy is promoted and then passed down they get filtered to meet local needs in a process of interpretation and application. The positive side of this process is that it promotes flexibility, but that flexibility can lead to a 'watering down', lessening their significance, which may or may not reflect accurately the intentions of those who designed the policy. Those who are responsible for its implementation such as FE institutions may interpret it according to their own culture, resources, experience and according to their own organisational needs. For example, a

policy driven by industry to provide better skilled IT workforce will seek the attention of government to promote the use of ICT in educational institutions to ensure that the future workforce of tomorrow are adequately trained. For this reason government will promote such a policy and will look to educational institutions to implement it. For this to happen the policy will be received by educational institutions that will take ownership of the policy requirements and embed it in their own policies and practices. Implementing policy in any organisation is not easy task. Policy implementation can be influenced by the level of commitment and understanding, the desire to take ownership, capacity building, resources required, the timing of changes, communication channels and practices as well as the desire to monitor, evaluate and review the policy affect (Bell and Stevenson, 2006). Another important point is that the way policy is received can lead to policy success or policy failure. For example, if the organisation has insufficient information about exactly how to implement the necessary changes related to policy then the desired policy changes may not possible.

9.2.4 How does policy affect the individuals involved in its implementation?

Those who work are at the operational level within an organisation are given the responsibility for integrating ICT into the curriculum must be allowed to voice their concerns such as barriers they encounter in their day-to-day activities. Unless these barriers are adequately addressed management's desire to integrate ICT into the curriculum by teaching staff will remain incomplete. Management must work with those at the operational level to ensure that they understand the relevance of using ICT and what is required of them to make it work. Visions of the government, educational institution, management must be shared with individuals. Management will have to provide the necessary support, training and be prepared to help improve confidence, fear and counter resistance to change. Management will also need to understand that the task at hand will not be completed overnight but will require time to implement and must engage the teachers. Resources must also be available as well as rewards given to those who take the initiative to move towards

successful use of ICT. Among the staff there will be those who will be unwilling to fully participate and may see the task of integrating ICT into the curriculum as an added burden and also as a threat to their status. Their concerns must be heard in order to create change.

9.3 Q2 What has been the contribution of policy agencies in supporting the development of non ICT FE teachers to use ICT in their teaching?

9.3.1 Role of policy agencies

The literature showed that New Labour knew that for the technology in education initiatives to be successful, policy documents alone would not achieve the vision, a partnership approach was required. For this reason New Labour brought about the creation of a national network of policy agencies to lead their vision of integrating ICT in education. Under the umbrella of the NLN, there were many ICT policy agencies as discussed in Chapter 2. The largest promoter of New Labour's ICT-related polices in education was Becta. The research showed that Becta, JISC and LSN played a major role in encouraging the use of ICT in schools and colleges. They generated numerous reports of direct use to policy-makers and college management. The findings were presented at seminars and conferences to share good practice on using ICT. There can be no doubt that these organisations increased awareness of ICT in FE. The research also found that other agencies under the NLN umbrella included JISC, LSN and LLUK all of which had varying roles in supporting the development of ICT in FE colleges through the provision of resources, knowledge and expertise. However, in evaluating their effectiveness, they contributed very little to actually getting non-ICT teachers to use ICT in their teaching. Their main weakness was that they provided an advisory service which supported colleges but did not bring about real change. New Labour and its policy agencies promoted the virtues of ICT in education, but there was little research on how it should be used or what impact it was having. The vision was that teaching classrooms would be revolutionised. How this would be achieved was less clear. Therefore it could be said that New Labour's policies lacked a co-ordinated approach and framework which affected the work of the policy agencies resulting in minimum impact, especially in FE.

A practical approach was required to support the policies and address the training needs of teachers and how they would actually integrate ICT into their curriculum areas. Interviews with various spokespeople highlighted cracks in the work of the policy agencies. For example, some could not remember working with the three Colleges in the study. All claimed to have one common purpose of sharing information and providing guidance and technical know-how on key issues relating to ICT training for FE teachers. Yet, some of the policy agencies saw themselves as government-led agencies whereas others regard themselves as independent agencies seeking information for their own needs. It would appear that they were less united in reality than in theory and as they were portrayed in the policy documents. The study also found that many of these policy agencies have generated ICT resource banks of ICT-related articles and ideas for using technology effectively in the classroom. However, teachers wishing to locate these would have to look long and hard. Most of these agencies worked with the SDOs but direct contact with the non-ICT teachers in the three Colleges to identify their developmental needs was virtually non-existent. It would seem that the teachers who have a key role in integrating ICT have not directly benefitted from the policy agencies. The policy agencies should build closer relationships with the teachers themselves to understand their actual ICT-related training needs in order to provide more tailored support, otherwise there is a danger that ICT will remain a bolt-on activity rather than an integrated one helping to revolutionise teaching and learning. The Coalition government closed Becta when it took over from New Labour leaving the future of ICT uncertain.

9.3 Q3. What training and continuing professional development opportunities exist to enable non-ICT teachers to integrate ICT?

9.3.2 The importance of infrastructure

Many young people today live their lives through technology and expect to be taught using technology in education. ICT represents a powerful way to maintain their interest. It would then make sense to ensure that teachers are confident and competent in its use. Computers, VLEs and IWBs are merely tools. Simply providing the tools does not make the teacher ICT competent. The

person must know the variety of tools available, understand the purpose of the tools, appreciate their potential and then learn how to use them. Teachers need training and support to become confident and competent in ICT.

This study found substantial evidence that most of the participants faced a number of practical issues which directly affected their ability to integrate ICT in their teaching. A fundamental starting point is to ensure that there is a strong infrastructure at a college level and access to a personal computer at local level. A review of the literature showed that early national efforts to build an infrastructure in education concentrated on helping educational institutions to put computers in classrooms. The extent to which colleges adopted technology varied considerably with some colleges ahead of the game and other lagging behind. Such differences could be partly explained by budget constraints and partly by the level of management commitment to using ICT by the individual Colleges.

All three Colleges in the study demonstrated a commitment to building a strong ICT infrastructure. There was a mix of new and old computers in classrooms and learning centres. New computers were a priority in dedicated ICT teaching rooms whereas older computers were located in teaching classrooms and particularly staffrooms. Computers over six years old were part of a replacement cycle, but there was no indication of when they would be replaced or how many would be involved. Such decisions would be determined by available budgets and the ability of the computers to continue functioning. This immediately presents a set of problems for non-ICT teachers trying to integrate ICT in all three Colleges, but particularly so in Colleges A and C. While all computers can experience technical problem, older computers are usually much slower and more likely to break down, causing difficulties. For a non-ICT teacher this can be frustrating as they may not be able to resolve the problem. In a classroom, this can cause disruption to the session, causing the teacher to lose face in front of students and leaving the teacher to think on his or her feet. If a computer

breaksdown in a staffroom it causes personal problems for the teachers and loss of time, even loss of work. Such situations can leave the teacher frustrated, and reluctant to embrace technology. Teachers who have had bad experiences may prefer to put more trust in traditional methods and limit their use of ICT.

9.3.3 The importance of training

The VLE and the IWB are very useful tools with enormous potential. However, again if systems failures frequently occur, then this has implications for preparation and delivery further affecting the confidence of the individual teacher. The three Colleges under study all had VLEs and IWBs in place. Again, they were at different stages of installation and hence different degrees of use. In Colleges A and C there appeared to be an assumption that simply providing computers, VLEs and IWBs would automatically result in their use. Little attention was given as to those who had to use them – the teachers. College B seemed to be ahead of the other two Colleges. College B offered its teachers' ICT-related training all year round and also arranged cover for their classes. Hence, there was greater integration and use of ICT in its school. It emerged that the university had provided training to staff in the School of Business and they seemed to understand the potential of the VLE more and so used it more. Due to this reason College B is able to have access to more resources than the other two colleges. College B is able to have access to additional staff from its sister university to benefit from the university's expertise. Often staff at College B are able to study at the university to further their career goals, whereas, this opportunity is not available in the other two colleges. The technological resources such as computers, projectors, staff development options are also much better due to lack of financial hardships as identified in the other two colleges. The management structure and also the style of management at College B is different such as there is a combination of top-down and also a bottom-up approach used to identify staff training needs and also in the close relationship between management and staff. Here, there seemed to be an increase in staff motivation, clarity of personal goals and a determination by all staff to take on ICT

compared to the other two colleges involved in this study. The management structure and style in College A and C are more rigid. They use a top-down approach which hinders communications between staff and management and more importantly there is little opportunity to identify individual training needs. Most of the staff development sessions offered at Colleges A and C are in-house, whereas, in College B, there are a number of options available such as on-line learning, internal or external training courses and also suitable time are given to staff to adopt and learn from their training. There are also opportunities to share their learning with each other which characterizes their expansive nature.

In all three Colleges, the teachers were told that the VLE and IWB form part of the curriculum provision and the extent to which they are used would form part of the Ofsted inspection grading of teachers' use of technology. This pressure might be a motivational force but it could also lead to fear of failure with the focus on safe but limited use, even avoidance strategies for much less confident users. The study found that generally the use of the VLE was as a learning repository to enable students to access information. While this function offers a valuable way to provide information and communicate with students, it is only a tiny part of its full potential. It seemed that the IWBs were also used as replacements for whiteboards and marker pens. If teachers are not made aware of the potential of IWBs, they may tend to avoid them or use them as a presentation tool which reinforces teacher-centred delivery. Teachers in the three Colleges showed awareness of the potential of technology and the value of it. The findings showed that the teachers lacked an understanding of the different functions of the VLE and IWB and that these were the main problem preventing successful integration, reinforcing the need for ICT teacher development.

9.3.4 New Labour's commitment to training

From the very beginning New Labour realised that ensuring the FE workforce became skilled would require substantial development. It also recognised that for some colleges workforce development may not have been the priority it should have been. As a result New Labour addressed

the matter directly by introducing reforms to professionalise FE teachers supported by on-going CPD requirements. It established the Institute for Learning as the official professional body for FE to oversee professional formation and ensure that teachers did the appropriate number of CPD hours. However, while teacher training has been subjected to some scrutiny, CPD has not received the same attention. The study revealed that CPD needs more attention than it currently receives, which simply constitutes a set of recording procedures submitted through *Reflect*. The study found that in common with all FE colleges, CPD training was the responsibility of the SDOs.

9.3.5 Training in the three Colleges

The current staff development strategies for supporting the needs of non-ICT teachers to gain the necessary skills are inadequate in the three Colleges under study, especially Colleges A and C who only offers a few one-or two-hour ICT-related sessions a few times a year on all staff development training days. This is insufficient to develop ICT competence. The undifferentiated ICT courses on offer have not been effective because they do little to meet the needs of individual teachers. Squeezing ICT into afternoon sessions and forcing teachers who are already busy to learn ICT is not productive or a good use of college time. As noted in earlier chapters, teachers' journey towards ICT is a process not a series of one-off events. There needs to be a recognition that teachers are at different levels in their understanding of ICT and also in its use. This might explain some of the reasons why the sessions have not been very successful in achieving their aims and objectives. Another reason for the lack of success might be the fact that the SDOs have the main responsibility for determining the training needs of teachers. This is an enormous responsibility, but what is especially worrying is that the SDOs in Colleges A and C had no proper system in place for identifying training needs or monitoring the training that had taken place. Needs analysis should be the platform for all training and development. The absence of a follow up system just compounds the problem further, resulting in a waste of resources. Using yearly staff observations is also an inadequate method because some non-ICT teachers may not want to highlight their lack of ICT

skills so stay within a safe zone by making minimum use of the technology available or using avoidance strategies in observation sessions. Using appraisals to identify needs is not the best way unless it is part of the appraisal itself. This requires supportive line managers who encourage staff to identify their needs in an open and honest way without fear of retribution. This highlights the necessity for ICT training to be focussed and purposeful as part of a shared approach. The frustration of the SDOs was also clear as they discussed the costs of providing training and limits imposed by budget constraints. Leaving the total responsibility of ICT training to SDOs is slow and unproductive. What is required is a more coherent training plan where managers, teachers, SDOs and TSSs meet to articulate their views and organise meaningful training sessions. The current top-down approach needs to include a bottom-up approach where the voices of teachers are not just heard but listened to.

Further evidence of a top-down approach emerged with the harsh views expressed by the SDOs regarding the provision of incentives for non-ICT teachers. They were adamant that teachers were not entitled to incentives to learn ICT. However, the reality is that accredited ICT courses require a number of hours over a fixed period of contact time with additional self study time outside because of the complexity of the subject content. If FE teachers are to take ICT seriously they need to make similar commitments by investing a substantial amount of their own time in college and also outside college. All teachers made it clear that there was no possibility of remission on timetables for professional development. In this context surely some incentive would be appropriate. The views expressed by the SDO showed a surprising lack of awareness, almost disrespect, for the teachers. This is astounding as New Labour acknowledged in the documents *Towards a Unified e-Learning Strategy* and also in *Harnessing Technology* that there was little training or reward for teachers. Some writers have suggested certification, professional advancement, pay increases, paid time off to participate in professional development, formal and informal recognition within the educational setting and by peers. ICT manuals or guidebooks should be the minimum. A step-by-step guide

would provide teachers with ideas on how to use ICT in their teaching. The ideas could then be incorporated slowly to meet their needs. The teachers in the study wanted their needs identified, the necessary time to learn and support. The provision of a laptop was seen as an additional aid to further enable them to develop their skills.

Although the Technical Support Staff had demanding roles and worked under constant pressure, they appeared to have little respect for teachers either, as many of their comments demonstrated. Many of the problems teachers experience are technical. Many of the teachers in Colleges A and C were unhappy that there were too few TSS. Teachers in all three Colleges felt that many of the technical support people were not aware of the stress and embarrassment teachers went through in front of their class when computer systems were down. It would be useful if the TSS produced a trouble-shooting manual which would help to build confidence and empower teachers when things go wrong. Another option would be for technical support to offer hands-on technical know-how to small groups of non-ICT teachers to ensure they can master the basics of the operating systems and the common errors that occur. This would lead to a reduction in the number of times the TSS are called out and it would improve relationships. In addition, it would enable shared learning with others.

9.3.6 The culture of the three Colleges

The training and professional development opportunities available to staff are determined by the culture of the three Colleges which can be broadly described as restrictive. On Fuller and Unwin's expansive-restrictive continuum College B is more expansive whereas College A and C are at the restrictive end. The teachers are generally willing to integrate ICT, but need the necessary help and support. This situation produces an approach to training and development which leads to misunderstandings, accusations, conflicting opinions and poor professional development outcomes. Clearly, the current system is not working as many teachers are still struggling to fully integrate ICT. Introducing change is always risky but without risks nothing changes. The Colleges need to

move towards an expansive environment, reviewing their policies, procedures and processes. This requires a change in management thinking that really listens to the needs of all members of staff, then works with them to establish training and development needs to find flexible ways to achieve these. Distributed leadership of training and development would be better able to identify local needs, use budgets better and liaise with SDOs to make the process more meaningful so improving monitoring procedures. The outcomes could lead to ICT-literate teachers that feel empowered and supported by the management. The benefits would then be seen in the classroom delivery, observations and in Ofsted inspections. The benefits would also be seen in the learner enjoyment, good retention and achievement. All organisations need to remember that their most important asset is the staff.

9.4 Q.4 What personal and institutional factors affect non-ICT teaching staff using ICT in teaching?

9.4.1 Personal views on ICT

The intention of this study was to cast the 'net' wide to include the personal and institutional factors involved when integrating ICT and also to find out if these were only associated with one particular college or if they were also found to be in other FE colleges. To understand the institutional and personal factors affecting non-ICT teachers, it was important to first understand how they viewed ICT. Teachers were generally aware of the benefits of ICT in the classroom to engage and motivate learners, especially those disaffected. The study showed that teachers recognised that holding on to traditional methods of teaching and learning alone could no longer be sustained. They appreciated the value of using technology for preparation and administrative purposes. They believed that it made their lives easier because teaching materials could be re-used and modified for future delivery saving time and effort. However, they were keen to highlight that there was a cost to this. Considerable time was required to search the Internet and to prepare worksheets, slides, handouts and classroom activities that were ICT suitable. Teachers had to take account of those who required additional learning or language support as they struggled with the more independent nature of ICT

which required additional planning and preparation. Teachers accepted this as part of their daily activities but stressed that the additional time and extra effort was not recognised by management. However, there was a minority of teachers who clearly regarded ICT as an extra burden in their teaching to which they were forced to respond by their individual colleges. The majority of teachers seemed overloaded with teaching and administrative tasks. It must be remembered that for an ICT confident teacher, time and effort required may be much reduced while for non-ICT teachers the time and effort may increase several times over, depending on the level of their ICT skills, knowledge, confidence and personal motivation.

The study also found that while teachers were aware of the benefits of using ICT, they did not blindly accept them. The literature review revealed how teachers appeared to make decisions based on its usefulness in the class, the subject taught, class size and whether the input in time and effort was worth the output in terms of learning. In other words, all teachers viewed ICT somewhat differently, engaging in a process of constant evaluation of its usefulness. Some teacher in the study expressed concern about ICT. For example, one reason offered for not wanting to use ICT all the time was associated with the fact that students would be disadvantaged when faced with traditional methods so a mix of methods was preferred. It must be remembered that ICT is a tool to enhance learning not a substitute for teachers themselves or other kinds of learning such as books. Teachers expressed concerns that students' preference for ICT could disadvantage some in written exams. Other concerns were that students' reliance on the Internet for assignment-related information searches would presented an easier option than using the library which then restricted or even eliminated their use of academic books. For this reason ICT should not be an either / or option but needs to be integrated to provide a balanced experience for students. Reliance on the Internet to complete assignments has been linked to an increase in copying and pasting. For teachers this does creates extra work as it presents dilemmas in deciding how much of the work is plagiarism and how to grade. Where students are challenged, additional time and effort is required in sorting out the

problem and remarking the work. Students can just as easily copy from course textbooks, but the vastness of Internet resources makes it not only easier but also more obvious to teachers. This might be because course textbooks intended for students, especially younger one, generally use simple easy to understand styles of writing. Work copied and pasted from the Internet may be a combination of styles including a mix of American and British language as well as a mix of academic texts and blogs. The problem could be ICT savvy students exploiting the Internet hoping to achieve maximum results with minimum effort to impress the teacher, or simply less confident students lacking the necessary skills of extracting and summarising information.

Another problem identified by staff was that classroom use of ICT tempted learners to use the recreational opportunities offered by technology such as chat-rooms and other social media sites. This is no doubt a problem. The actions of one student may encourage others to do the same making the teacher feel a loss of class control. These problems can be overcome with the management of tasks, activities and classrooms to prevent this happening. Another reality is that even in most workplaces today, staff will use the Internet for personal use: a fact that many companies have accepted as a consequence of technology. The problem is the frequency of use, its duration and the extent to which it affects workplace performance or classroom learning.

Some teachers may hold false assumptions that they are using ICT when in reality they are just providing computer access to students to carry out research for assignments or type up their assignments. The opposite is also true. If teachers are not aware of the potential of ICT and how it can be used effectively, they may make decisions not to use it based on false assumptions that it can offer little to learners and that Internet searches or typing up coursework should be done in the library or at home. While most of the teachers were positive about ICT, there were a few teachers in all three Colleges who firmly believed that ICT would not made any real difference to their teaching

practice or that it was productive. They saw ICT as a burden rather than a tool to enhance their profession. It will no doubt be difficult to convince these teachers of the value and potential of ICT.

9.4.2 Software issues

These factors may affect personal motivation leading to the decision to avoid using ICT as much as possible. Having appropriate subject software can overcome some of the problems. The study found that teachers in all three Colleges used word-processing, emails and PowerPoint slides extensively for their daily work. However, there was little specialist software available for use in their subject areas that could be used without modifications. The lack of appropriate software could reflect the unwillingness of the individual three Colleges to invest in resources or their lack of knowledge about what options exist. Part of the problem might be that some of what is available is suited to higher level courses and is costly. This could be why College B had made some investments such as the purchase of a CD ROM of business related topics which could be accessed by staff and students. This might be explained by the College's close links with its sister university and access to information, support and training. Across the three Colleges staff generally had little access to resources. The situation in College A and C was particularly dire. What was also alarming is that the SDOs had no idea about the resources available to staff. It could be argued that resources are something for the different schools and sections to decide. As there is a drive to integrate ICT, the SDOs should have some knowledge about the matter. New Labour called for greater collaboration between teachers and commercial suppliers to develop materials. Policy agencies claimed that vast amounts of ICT-related resources are available on the Internet for specific subjects, levels or groups of learners, yet there is no effective way of searching or accessing these. Depending on the subject taught, a subject teacher is often the only person teaching a particular course module or unit which places unacceptable levels of stress and work on teachers. Commercial providers have developed resources for schools but much less in FE so it could be said that FE still remains the Cinderella service in many ways.

The ideal situation would be the setting up of an ICT resource bank in each of the three Colleges using their VLEs to which everyone could contribute. A concern expressed was that those active teachers may contribute more. This is always going to be a risk, but if those that do contribute get recognised for their input, it might encourage those less active ones to join in. However, to use ICT effectively means having adequate access to computers. The Heads of Schools in all three Colleges were clear that there were no teachers without computers. The study discovered that while there was certainly access, part-time fractional teachers in both College A and C had to share a computer, something they were not comfortable with because it made their work more difficult as they had to wait to check their e-mails, access the Internet or prepare for the next lesson. This problem, along with the slowness of the computer system, caused some to work more at home. However, in order to meet teaching and administrative demands, working at home was found to be common for many teachers in the study which was reflected in some resentment towards management. Teachers in the study felt under pressure to use ICT, but were hampered by frequent systems failure which forced them to prepare an alternative lesson plan and materials. Some preferred to work at home. This persistent problem with systems reduced teachers' confidence levels making them reluctant to use ICT.

9.4.3 Personal experience of using ICT

When systems failed, this had additional consequences such as having to make up for lost time in order to cover the syllabus. Teachers reported that they reluctantly called out TSS. Research has shown that the successful integration of ICT is closely related to the frequency that teachers experience technical problems within a given period. Research has also shown that teachers who have the support of technicians when using ICT are much more confident in resolving ICT problems. Management in the three Colleges need to understand the importance of providing adequate technical support without which only modest use will be made of ICT. Although the technical support service is well established in all three Colleges, teachers still felt that it was

limited to the repair and maintenance of ICT equipment. These teachers would have appreciated the TSS sharing some basic technical know-how with them. Many teachers were dissatisfied with TSS just providing the service of sorting out problems and not offering advice as to what had gone wrong so they could deal with technical problems themselves in the future.

Personal factors that can promote or hinder the use of ICT include reluctance, fear and anxiety. In the three Colleges there are pockets of fear of ICT and technology in general. One SDO in College C believed that the more established, long-serving teachers were more fearful of technology while others could not be bothered. Age could play a part but research shows that where individuals perceive they have the ability and gain confidence then ICT is used more energetically. The SDO in College A saw the problem as lack of personal motivation. Resistance to change occurs when traditional assumptions and values are challenged or when something is imposed rather than explained and justified. Change requires teachers to pass through the zones of uncertainty. The SDO in College B appeared to understand the problem better suggesting that teachers need to be enticed to use ICT and that once they appreciated the benefits, they would embrace its use. Fear and anxiety can lead to embarrassment which itself can act as a motivational force especially when students know more about ICT than their teachers. The study showed that the younger the students, the less forgiving they were when their teachers struggled with ICT. Teachers were aware that the confidence gap needed to be closed. However, fear can also be demotivating. For example, working in an environment of uncertainty brought about by continuous change, a number of teachers felt that they could be targeted for redundancy if lesson observations showed inadequate use of ICT.

9.4.4 Training provisions in the three Colleges

The study has already established that training was not helpful, leaving teachers demotivated, because it did not provide hands-on experience or meet their personal needs, although it did show teachers some of what was possible. Teachers suggested that the key issue for ICT proficiency has to be pedagogical rather than technical. Teachers in both Colleges A and C indicated that they were

dissatisfied with their training, whereas those in College B were more satisfied. Some teachers in College A expressed disappointment after taking their ICT training needs to their line managers who dismissed their requests on the grounds of budget restraints or advised them to wait for some future training opportunities. In all three Colleges teachers were proactive in using a range of strategies to cope with inadequate training. A few would ask students but did not feel particularly comfortable with this option. Some had taken the imitative to train themselves but the process is slow and hard. The overwhelming choice when they got stuck with an ICT problem was to consult a colleague for help.

9.4.5 The learning context

Teachers clearly found the best way to learn was situating their learning in the context of their own practice. The need to understanding and learn something that was relevant to them in a moment of need, panic or just interest proved positive and useful. They clearly appreciated and respected the knowledge of their colleagues because they shared a common understanding of the problem or learning from other teachers' perspectives. Some of these colleagues might have been ICT teachers but many were non-ICT teachers at more advance stages of their own ICT journeys. This also offered the teachers the opportunity to have conversations with colleagues where they could ask questions and reflect on how different aspects applied in classrooms. Therefore, the more experienced or more knowledgeable teachers had walked the path of trial and error and were able to empathise more and contextualise advice and guidance. Research has highlighted the important role that colleagues play in guiding and supporting such a journey through the stages of becoming aware, accepting, adopting, adapting and applying competently before innovating. Those teachers who saw ICT as a burden still require help to change their views by understanding its relevance to them. With on-going support the most reluctant of users of ICT can become the most willing of users.

Situated learning is powerful because it occurs naturally. Talking to supportive colleagues can reduce levels of fear and anxiety and start the teacher on the journey towards ICT competence. Situated learning has implications for training and CPD activities. The IfL has recognises the importance of collaborative learning where people can share experiences and practices by learning from peers. There was total agreement among the teachers who said that ICT-related training should to be developed in a collaborative way to take account of teachers' prior knowledge, experience and attitudes towards ICT. Some teachers suggested that mentoring by ICT teaching specialists would greatly improve their ICT integration as they would understand the pedagogical aspects of teaching and learning and better comprehend their ICT needs than SDOs. Whatever form the training of non-ICT teachers takes it should be 'career lasting' in order to respond to the newer emerging technologies and organisational needs.

9.4.6 Embracing change and technology

The study found that in bringing about effective integration and use of ICT, it is not just the teachers who must pursue change and embrace technology; there must be a commitment from the institutions in which they work because the culture of an organization directly influences the development of its employees. FE educational institutions often forget that it is the teachers who are in direct contact with the students, therefore it is the teachers who should be regarded as the 'agents of change'. All teachers in the study strongly felt that the responsibility of integrating ICT into education cannot be left to them alone; it has to be a partnership approach with management to realise the vision. However, management must have a realistic understanding of the pressures imposed by the challenging nature of FE today since incorporation and view issues from the perspective of teachers.

9.4.7 Contribution to professional practice

As a practitioner-researcher this study has provided the opportunity to put research theory into practice and addressed some of the problems that my colleagues experience when integrating ICT

into their teaching and learning. All the participants were able to make some positive contributions and air their concerns with regard to the subject matter. This study has also brought about a better understanding of the different barriers faced by non-ICT teachers. It has highlighted a number of issues, such as identifying non-ICT teachers training needs, the importance of establishing better communication between teachers, SDO, TSS and management as well as providing ICT-related training at varying levels according to teachers' needs; and the importance of monitoring progress and follow-up training. These issues have been accepted at my College as areas for improvement. The research and findings have given me in-depth knowledge, which I hope to take account of in my own teaching practice and disseminate to others in the FE sector. The diagram below shows the responsibilities of all concerned when identifying and addressing non-ICT teachers' needs.

9.5 *Identifying and addressing non-ICT teachers needs*

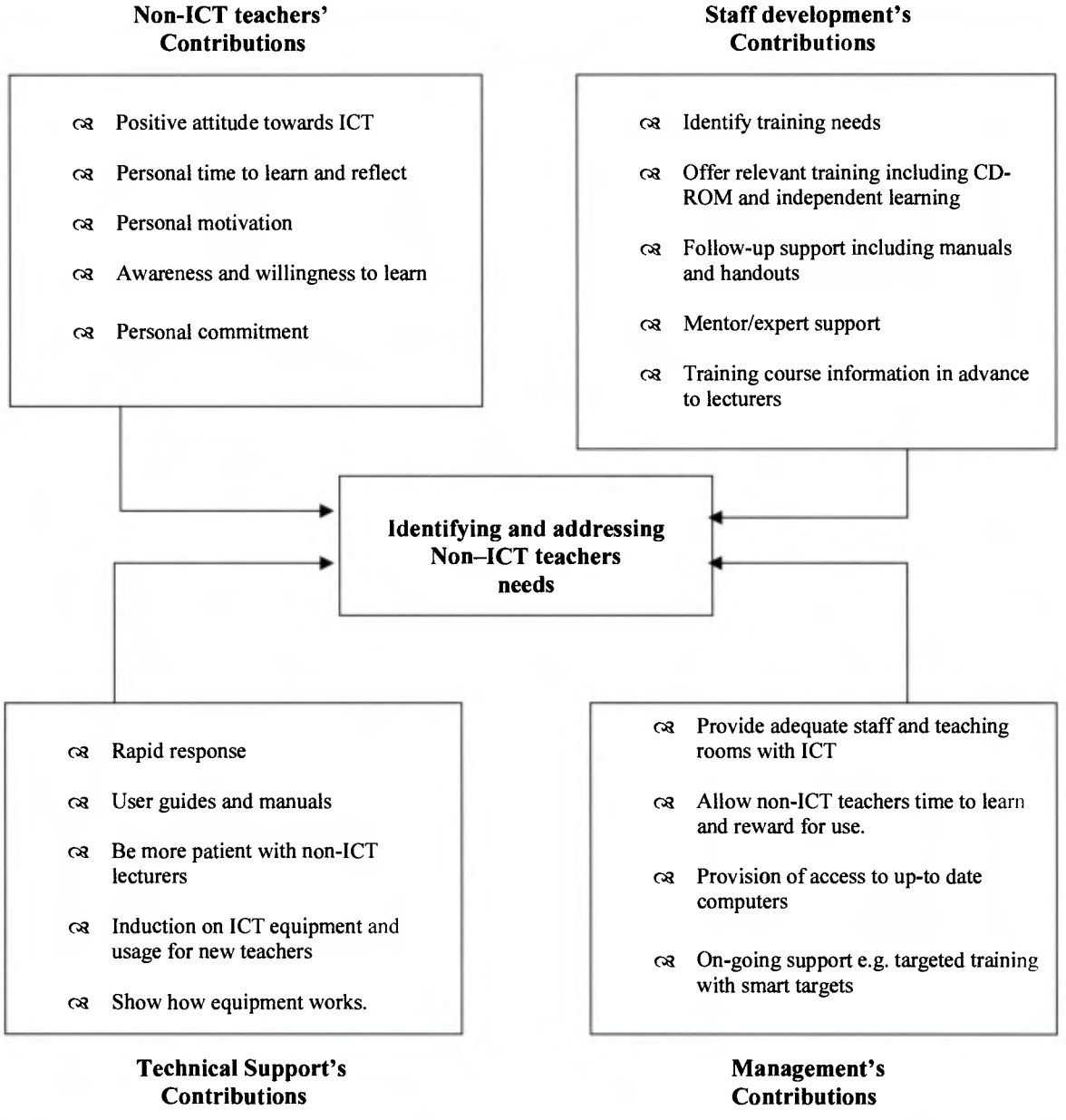

Diagram: 8 Contributions required for non-ICT teachers needs

9.5.1 Management's contributions

When identifying non-ICT teacher needs it is important for management to consider not just the policy requirements that needs to be addressed such as ensuring all teachers are adequately trained to use ICT in their teaching learning. Management must also consider and identify the barriers that may be faced by the individuals who will undertake such training. It is therefore important to ensure that when managers want to drive the policy initiatives forward they must see employees as unique individuals and consider their current skills and needs carefully. Using a 'one size fits all' strategy

may not be the best way to approach staff development training sessions. A top-down learning development plan is doomed to failure if the needs and perceptions of the employees are left out of the planning and preparation of staff development. For this reason, managers need to understand that some individuals may want hands-on learning experience whilst others may want a formal and structured way to approach their training and development needs. Managers will also need to make allowances for the different levels of understanding and knowledge already acquired by individuals before considering the planning, delivery of organising ICT-related staff development sessions. However, just providing adequate ICT training but not providing the time to learn and integrate what has been learnt will not be prove to be a totally successful venture.

In addition, once training has been completed, managers will need to monitor performance of staff in order to identify further training needs, get feedback and listen to suggestions from staff, prioritise areas of weakness before planning for future staff development sessions. Managers will also need to consider resources required for staff training, identify preferred different training options such as on-line learning, internal or external and also job shadowing. Realistic and measureable targets will need to be set and ensure that adequate support is available for staff to adopt and use the skills they have learnt in order to realise the policy outcomes.

9.6 Future implications

In this digital information age, colleges with good computer facilities and competent staff able to engage learners with ICT may be an attractive and desirable feature in promotional literature. If ICT forms a key part of Ofsted inspection reports, then students and parents may read these inspection reports to make informed decisions about whether College A, B or C is the most suitable. In a competitive environment such facts because important and have implications for recruitment, retention and achievement of students. All three Colleges are forward-thinking institutions in many ways, but this does not seem to relate to the training and development of academic staff. They will need to take a closer look at their current ICT provision for non-ICT teachers. The findings revealed

that the factors affecting non-ICT teachers integrating ICT are multi-faceted and do not lend themselves to a single solution. Adopting a move from a restricted environment to an expansive environment where teachers have more control over their own learning is vital. An expansive environment would promote situated learning so all staff could learn from each other in their professional contexts both individually and in teams. The coming together of teachers from the same college or different colleges can be helpful in forming what is known as 'communities of practice' where peers can share and exchange ideas to support teacher professional development.

Lave and Wenger (1998) developed the concept of communities of practice. They considered that communities of practice are part of everyday lives whether home, in leisure activities or at work. Communities of practice are formal or informal groups of people, who have an interest in a subject, interact regularly to share their knowledge and skills with a view to doing something better. In this sense they are fluid rather than fixed as new people might join and new learning is gained. It is about participating in discussions, sharing of resources, knowledge, know-how, identifying problems, understanding the experiences of others, findings solutions and activities so that learning is on-going. The concept of communities of practice has become widespread as an innovative and valid form of learning. Within educational settings communities of practice exist within teacher training as newer teachers are guided by more established teachers. Established teachers can provide peer support and learning in the same discipline or across disciplines so creating professional development opportunities. It offers teachers opportunities to network within the same organisation or across colleges to interact and share learning in a collective way to become competent in using ICT.

9.6.1 Recommendations

The following recommendations are directly linked to the findings of this study. All future staff development sessions should consider these before following delivering ICT training to non-ICT teachers.

9.6.2 *Non-ICT lecturers' requirements*

- All teachers including part-time and visiting teachers should be given an ICT induction related to the equipment that they would be expected to use in classrooms. These should be delivered by ICT experts and also by technical support staff. This could cover pedagogical and technical issues

- Teachers need to be shown the wide-ranging benefits of using ICT and how it will improve their teaching and students' learning. They should also be given the opportunity to observe other teachers using ICT effectively in their lessons.

- All teachers will need timetable adjustments to attend training sessions, seminars, share good practice and practise what they have learnt.
- The purchase of software programs should be done in collaboration with the teachers' as they will be the ones using them. Teachers must be allowed to evaluate the usefulness of the software, ideally before its purchase.

- Specific funding should be allocated to ICT-related training rather than it just being part of the general budget so teachers can attend courses and conferences.

- In line with national policy documents on ICT as well as evidenced based research, teachers should be given incentives, rewards and recognition to master ICT for successful integration.

- An ICT-related teaching materials resources bank needs to be established for teachers to use and share.

- There needs to be a variety of support mechanisms such as mentoring, peer collaboration and supportive lesson observations.

9.6.3 *Staff development issues*

- Training for non-ICT teachers should be the result of a supportive needs analysis based on current levels of knowledge and skills rather than just offering blanket courses for all. An individual learning plan for teachers would be most suitable with realistic smart targets.

- A change in culture to a more expansive learning environment would recognise that teachers' need flexible ways of learning. The cultural change would enable the recognition of situated learning as a powerful way for teachers to learn by doing, share ideas and explore issues.

- Communications between staff development, line managers of teachers, technical support staff and the teachers who require ICT-related training need to be improved. Everyone involved should have a role to play.

- Staff development should provide user manuals at the end of training sessions.

- A more detailed training schedule for the academic year should be provided so that teachers can plan for annual training events.

- Teachers should be given the opportunity to learn at their own pace via on-line ICT training sites on the VLE. These need to be accessible from outside the college too.

- There must be recognition that learning ICT is a journey not a series of one off events.

- Teachers must be allowed to work through the different stages one at time. More importantly flexibility is needed as teachers will be at different stages of the journey with different levels of knowledge and skills.

- Teachers should be given a checklist or a portfolio of skills for the use of ICT and should record when they have achieved their training and have confidently used it in their teaching.

- Follow-up support is essential so that what has been learnt will not be lost especially due to lack of practice or being able to discuss their concerns with others.

- Set up an action research to support and help teachers in the formation of communities of practice.

- Monitoring progress is essential. Teachers may need further training. And should be involved in recording their progress for discussions with line managers.

9.6.4 Technical support issues

- Technical support staff should provide an induction session for all new teachers and workshops for existing teachers to using ICT equipment to empower teachers and reduce the pressure on technical staff.

- The ratio of technical support staff warrants further investigation. Given the importance of ICT there should be enough technicians made available.

- Technicians are already aware of the most common faults and reasons why teachers call them. Based on this, technician should provide a basic troubleshooting manual for teachers to enable them to familiarise themselves with possible causes of problems and deal with them.

- Technicians should explain in simple terms what the problem is and how they have solved it. This would encourage teachers to solve basic problems on their own and thus increase motivation and reduce stress for both sides.

9.5 Finally

We have seen in this study that in the UK we are currently witnessing a number of technological changes that are transforming the nature of our work environments and that we have become much more reliant on computers to carry out business activities. There is also the added pressure of globalization on our educators who must prepare to embrace and understand these changes in order to educate our students. We need to remember that it is our teachers who prepare the students for future employment. Therefore, teachers will need to be supported at every level. Continuing to inhibit teachers' professional status by not providing them with adequate training, not allowing time to integrate and use ICT and not giving relevant support in the use of technology will limit their ability to fully participate in engaging the learners of today, who will become the UK workforce of tomorrow. There is no doubt that New Labour's polices relating to ICT have had a significant impact in the UK education system but unfortunately this goal remains incomplete. The process of integrating ICT into classrooms started well over a decade ago, it is still in motion and some positive changes are taking place but it will be sometime before we can see the outcomes. Therefore, New Labour's vision of integrating ICT into the UK educational arena remains rhetoric and not yet a reality.

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APPENDIX A

Common barriers identified in literature Review

Most common barriers identified in literature review

Barriers to ICT integration	Researcher(s)
Lack of time — for both formal training and self-directed exploration and for preparing ICT resources for lessons	• Fabry & Higgs (1997) • Preston *et al.* (2000) • Cantor (1992) • Stein (2005)
Lack of self-confidence in using ICT	• Pelgrum (2001); • Dawes, 2000 • Larner and Timberlake, 1995; • Russell and Bradley, 1997 • Stein (2005)
Negative experiences with ICT in the past	• Snoeyink & Ertmer (2001)
Lack of motivation to change long-standing pedagogical practices	• Snoeyink & Ertmer (2001)
Lack of personal change management skills.	• Cox *et al.* (1999)
Classroom management difficulties when using ICT, especially Where pupil-to-computer ratios are poor.	• Drenoyianni & Selwood (1998); • Cox *et al.* (1999)
Fear of embarrassment in front of pupil and colleagues, Loss of status and an effective degrading of professional skills.	• Russell & Bradley (1997)
Lack of the knowledge to resolve technical problems.	• VanFossen (1999) • Cox et al., (1999)
Perception that technology is not useful in learning.	• Yuen & Ma (2002) • Preston *et al.* (2000) • Cox *et al.* (1999)
Reluctance to abandon their existing pedagogy	• Rogers (2002)
Resistance to change	• Albaugh, (1997) • Cuban et al.., (2001)
Workload and other responsibilities	• Cantor (1992
Lack of technical support.	• Preston et al. (2000), Cox et al. (1999); • Stein (2005) • Bradley and Russell, (1997) • Cuban, (1999), Ertmer, 1999)
Lack of training according to teachers' existing ICT skills and knowledge. Not enough training opportunities	• Veen (1993) • Stein (2005) • Pelgrum, (2001)
Quality of training available	• Pina and Harris, (1993) • Lee, (1997) • Ertmer, 1999)
• Lack of ICT equipment • The cost of acquiring ICT, • Lack of ICT resources	• Pelgrum (2001) • Guha (2000) • Cox *et al.* (1999)
Obsolescence of software and hardware.	• Preston *et al.* 2000) • Stein (2005)
Unreliable equipment.	• Butler & Sellbom 2002; • Cuban *et al.* 2001)
Lack of access to ICT equipment	• Fabry & Higgs (1997) • Cuban *et al.* (2001)
Lack of administrative support	• Albaugh (1997) • Butler & Sellbom (2002)
Lack of institutional support	• Larner & Timberlake (1995) • Cox et al. (1999)
Lack of training focusing on integrating technology in the classroom	• VanFossen (1999).

Appendix A

APPENDIX B

Participants' profile

Participants' profile

Participants	Age range	Male / Female	Full / part time	No. of yrs in FE	Teaching subject	Teaching qualifications Held	Comments
A1	36-45	F	6	22	Business Studies	PGCE	
A2	36-45	F	FT	2	Business Studies	Cert Ed	
A3	25-35	M	FT	3	Business / admin	City and Guilds	
A4	36-45	F	PT	13	Human Resource Management	PGCE	
A5	56-65	F	PT	2	Business / admin	PGCE	
A6	36-45	F	FT	1	Business finance / management	Currently studying PGCE	
A7	46-55	M	FT	8	Business finance / management	PGCE	
A8	25-35	F	PT	2.5	Business Studies	PGCE	
A9	36-45	F	FT	4	Human Resource Management	PGCE	
A10	25-35	M	PT	10	Business / admin	PGCE	
A11	46-55	F	FT	4	Business Studies	PGCE	
A12	46-55	F	FT	12	Business Studies	PGCE	
B1	36-45	F	FT	3	Business Studies	Currently studying PGCE	
B2	46-55	F	PT	3	Business / admin	PGCE	
B3	36-45	F	FT	8	Accounting	City and Guilds	
B4	46-55	F	FT	7	Business Studies	Currently studying PGCE	
B5	46-55	M	PT	3	Business Studies	PGCE	
B6	25-35	F	FT	4	Accounting / Business Studies	Cert Ed	
B7	46-55	F	FT	4	Business Studies	PGCE	
B8	36-45	F	FT	4	Business Studies	PGCE	
B9	56-65	M	PT	18	Accounting / Management	PGCE	
B10	46-55	F	FT	17	Business Studies	PGCE	
C1	46-55	F	FT	9	Business Studies	PGCE	
C2	46-55	M	PT	13	Business Studies	PGCE	
C3	36-45	F	FT	9	Business Studies	City and Guilds, PGCE	
C4	25-35	M	FT	16	Business Studies	PGCE	
C5	36-45	F	FT	11	Business Studies	PGCE	
C6	46-55	F	FT	4	Business Studies	PGCE	
C7	36-45	F	FT	5	Business Studies	Cert Ed, M Ed	
C8	25-35	F	PT	4	Business Studies	PGCE	
C9	46-55	F	FT	3	Business Studies	Cert Ed	

Appendix B: Profile of the participants involved in this study

APPENDIX C

Interview schedule

Developing an ICT teaching workforce for the FE sector:
Rhetoric or Reality?

Interview schedule

Organisations	Interviewees	Data Collection Methods	Interview Duration
FE colleges A, B, and C (3 London Colleges)	31 non-ICT teachers 3 Staff Development Officers 9 Technical Support Staff 3 ILT Champions 3 ILT Managers	• Semi-structured interviews • 31 Questionnaires for non-ICT teachers • Documentary analysis • Policy documents	Approximately 45 – 60 minutes each person
Policy Agencies Learning Skills Network, (LSN) British Educational and Communications Technology Agency (BECTA) Joint Information Systems Committee (JISC)	3 Spokespersons	• Semi-structured interviews • Documentary analysis	Approximately 45 – 60 minutes each person
FE Inspectors **OFSTED**	-	• Documentary analysis • Policy documents	-
Government Department for Education and Skills DfEE LSC	-	• Documentary analysis • Policy documents	-
Others Lifelong Learning UK, QIA Institute for Learning IfL National Learning Network [NLN] NIACE, LSIS	-	• Documentary analysis	-

Appendix C

APPENDIX D

Interview questions

Interview questions for non-ICT teachers

Qualifications & future in FE

Age

Mode of employment: Full-time or part-time

Number of teaching years in FE:

Number of years at this college:

What teaching qualifications have you achieved?

When did you complete these qualifications?

Did these courses incorporate the use of ICT in teaching and learning? Tell me…

Subject you teach in FE:

Are you under-taking any qualifications such as Initial Teacher Training at this college or anywhere else whilst teaching here?

If yes, how are you finding it balancing work with studies?

Do you regard yourself as a professional working in FE as a lecturer? Why?

What affects do these concerns have on your profession? Why?

How do you see your future as a lecturer in FE?

Would you recommend this profession to members of your own family to teach in FE?

What problems related to your profession are you facing in the college for your future in FE as a lecturer?

How do feel about the constant changes of names and responsibilities of organizations taking place in the education sector?

In the college do you have a personal laptop or PC for your exclusive use?

Use of ICT in teaching for you and your students

What ICT methods / equipment do you use in class?

How does ICT lend itself to your subject area?

Has the use of ICT reduced your workloads?

How often do you use ICT in your teaching per week?

What advantages do you see in using ICT in classrooms for yourself?

What advantages have you had using ICT for personal admin such as record keeping, marking, tracking student progress?

How do you feel the ICT has contributed to your learning experience as a teacher?

Is your students' concentration span better when using ICT? Please explain.

What disadvantages do you see using ICT in classrooms for students?

How has you student's learning changed as a result of you using ICT?

Do you feel that your students know more than you about ICT?

What are your fears in using ICT?

What do you see as barriers to your development in ICT?

How have you / will you overcome them?

Are the computers you and your students use up-to-date?

What would motivate you further to take on ICT?

Internet & VLE / Intranet

Which of these are you confident about?

- **Basic Computer knowledge**
- **Installing software**
- **Installing a printer or other devices**
- **Word Processing**
- **PowerPoint**
- **Graphics i.e. Coraldraw**
- **Database**
- **Spreadsheets**

How often do you use the Internet? Where?

What do you use the Internet for?

How often do you use Virtual Learning Environment (VLE) / Intranet in the college?

How do you think VLE is useful for your students?

How often do you use ICT for student assessments?

Do you have access to an ILT Champion at your college?

How much help is this person?

Government related issues

What do you think about the government's policy for new qualifications for FE teachers?

How you think these new qualification will help (you) as a lecturer?

What outcomes can you see for yourself and in general with this new qualification?

The government also wants all FE teachers to use ICT in their teaching & learning.

What is your opinion of this?

What ICT skills do you lack to make you a better lecturer?

Inspections

FE Inspectors will assess your use of ICT in the classrooms. How do you feel about that?

Do you feel ready for the inspection? Why?

Your ICT related training

What equipment & software training have you received in the college? (Please list)

How often do you receive ICT training per academic year?

How has these ICT training helped you in your work as a lecturer?

Is ICT and use of equipment such as scanners, digital projectors, printers, college Intranet and Laptops, PCs covered in the teacher inductions or training sessions?

This academic year how many times have you met with the Line manager or the Staff Development Officer to discuss your training needs?

How would you rate your knowledge of the use of ICT in your teaching? 1 – 5 (1 best)

What are your concerns about new technologies arriving in teaching?

What external ICT related training have you attended?

What funding of courses for ICT have you received?

What ICT related (equipment & software) have you learnt by yourself?

What ICT training materials have you been given by the college for self-study?

What do you think about having access to a central database where you can use ICT related materials in delivering your subject area?

Do you have access to one in the college?

What else can Staff Development Officer do to help you in further ICT training?

Support for you

How often do you have access to a laptop and a digital projector for your exclusive use?

What is an Interactive whiteboard? Have you ever used one? For what?

What is a blackboard? Have you ever used one? For what?

What technical support do you receive when things go wrong in the class or staff rooms?

What other support from the college would you like to help you in using ICT?

Time

How much time do you spend per week on a computer to prepare lessons?

How much time did you spend in lesson preparation before using the computer?

How much time does the college provide for you get to learn ICT?

Computer use at home

Do you have a computer at home?

What do you mainly use it for?

Anything that you would like to add with regards to what we have discussed so far?

Thank you very much for this interview

Interview questions for Technical Support Staff

Name: **Position:** **College ID:**

- How do you think the technical support of non-ICT teachers differs from ICT teachers?
- How do you feel responding to non-ICT teachers?
- What are the main reasons do non-ICT teachers call you for. Can you give me some examples?
- What help or support should be given by the college and by Staff Development to support the non-ICT teachers, so that you can do your job better? Can you give me some examples?
- What extra support could you give them if you were in charge of their training needs?
- Is the current training offered by the college for non-ICT teachers adequate? If not, why not?
- How do you think the needs of non-ICT teachers will change if they received training from technical support staff like yourself?
- What training and support would you provide?
- If you were responsible for the non-ICT teachers training, what would you do and how would you cater for them bearing in mind what they call you for?
- Do you provide any guides or booklet or anything else like messages or notes or posters? Why not?
- What do you do when non-ICT teachers get frustrated when the network system is down?
- How many technicians are there at this site?

- Often teachers complain that technical support is late, they never turn up on time or they are not available and when we go and knock on their door they are not there. What do you say to that?

- The computers that the non-ICT teachers and students are using, would you say they are up to date and how old are they?

- How often does the network systems break down and what do you do about it?

- What do the teachers do when the system is down with their students?

- Is there anything else that you would like to add?

Thank you very much for the interview.

Interview questions for Staff Development Officers

The current government is intends to build a world-class skilled workforce and a UK economy capable of competing in the global markets. For this to become a reality, the government wants all FE teachers to be qualified and be proficient in delivering their subject areas using ICT in their teaching and learning. The purpose of this interview is to understand the views of the Staff Development Officer and what ICT related courses are being planned and delivered by this college for non-ICT teachers in relation to the above agenda.

How do you see your role as Staff Development Officer?

What skills should non-ICT teachers have to carry out their in role?

What provisions have you made for teachers use of ICT in their teaching and learning?

What percentage of the college budget goes towards teachers' ICT training needs?

How do you identify individual teachers' ICT training needs?

Is it compulsory for teachers to attend ICT training sessions?

How do you cater for the ICT training needs of part-time teachers?

Do they get paid for attending these courses?

When providing ICT training, what opportunities do you provide for teachers who already have some ICT basic skills?

What incentives do you provide for teachers to take up ICT in their teaching?

Name some of the ICT training courses you provided for teachers so far?

After providing ICT related training do you explain how these new found skills could be used in the classroom during teaching?

What ICT learning materials are teachers given to practice on their own?

<u>Feedback & monitoring</u>
What feedback procedures do you have in place whether teachers enjoyed the ICT training sessions or want to make some general comments?

What monitoring process do you use to check on the progress of the teachers that has been offered training?

Is ICT and use of equipment such as scanners, digital projectors, printers, college Intranet and Laptops, PCs covered in the teacher inductions or training sessions?

Virtual Learning Environment

What do you feel about the staff perceptions of the college and use of VLEs?

What ICT training opportunities are there for teachers to study on their own?

How much do the teachers use VLE in their teaching?

ILT Champions

How many ILT Champions do you have in your college?

What help does the ILT Champions provide for the teachers?

What is the difference has ILT Champions made to supporting the integration of ICT?

Time

How much time is given to teachers to study or take up ICT in college?

How much time has been allocated for teachers to practice what they have learnt?

External courses

How often do you send teachers to external courses?

What funding is available for teachers to take up external courses?

Resources

Does your college have a ICT resource databases? If not why not?

What access to ICT-related resources does the teachers have using ICT?

Equipment

What is your opinion of the quality of ICT equipment in the college?

Are the ICT equipment adequately used throughout the college?

Sharing good practice

How is good practice related to ICT is disseminated in your college?

How much choice do you provide in ICT training for teachers during training days?

How much communications do you have with the PC / networks manager & Technical Support Staff?

Standards and strategic plans

What can you tell me about the LLUK standards and how it relates to the teachers ICT training in your college?

How are the teachers accredited for their ICT training?

What other strategies do you follow?

How often and when do you provide ICT training for non-ICT teachers?

How do you cater for teachers with different levels of skills and knowledge?

What difficulties are you facing when delivering ICT training sessions?

What is your future plans for staff development?

Inspection

FE Inspectors will assess teachers on their use of ICT in the classrooms. How well are the teachers in your college prepared for this?

When the college carries out their own inspections, do they cater for the use of ICT by teachers in the classrooms?

Policy providers – provides ICT training

Is this college associated with any of the following ICT training providers such Becta, Ferl, Jisc, LSN (Learning and Skills Network)? Then who?

What services do they provide for your college with regard to ICT training?

How helpful are they in delivering ICT related courses to the college?

Has the college used or taken part in any of the ICT related programmes provided by the above mentioned policy providers?

College Strategic Plans

What does the college strategic plan say about ICT training for teaching staff?

How well does the use of ICT operate according to the college strategic plans?

What surveys have been carried out on the use of ICT for Teachers?

What do you consider as the most important factors that have contributed to the successes of ICT to the teaching staff?

Thank you very much for this interview.

Interview questions for Policy Agents

Your organization

- **How do you define your organization? Are you a govt. agency? Would you describe yourself as a developer / promoter?**
- **How is your organization different from other ICT policy providers?**
- **How is your organization making a difference?**

Policy & its development

- **Why were the ICT / ILT policies developed?**
- **Were any changes made when the policy proposals came from DfES?**
- **Who was instrumental in the early stages of the ICT policy for t/t in FE?**
- **How does the ICT policies take account of the different levels of skills and knowledge of FE lecturers?**
- **Some people may say that your organizational policies are broad and open to interpretations. What is you opinion?**
- **What factors influence the delivery of the ICT policies for FE teachers?**
- **What is driving the development of ICT policies for FE's teacher training?**
- **How will these policies be applied to part-time / hourly paid lecturers?**
- **How were the ICT elements within the policies developed?**
- **Where do you get your original instructions from regarding ICT training for FE lecturers?**
- **To what extent were FE lecturers consulted in the early stages of the policy development about their ICT training needs?**
- **How much impact has the work of your organization had on the development of FE lecturers ICT training?**
- **Now that your org has been providing training polices for a period of time, what provision do you have in taking into account the problems and challenges faced by many non-ICT lecturers at FE colleges?**

Inspection process

- **How do you inspect if FE is training their teaching staff according to your policies?**
- **Why are FE inspectors not inspecting Staff development in FE?**

- **How often does your organization meet with FE inspectors and why?**
- **What dealings do you have with the FE inspectors –such as ALI and OFSTED?**
- **What is your organization opinion on colleges offering ICT blanket training for all teaching staff during staff development sessions?**
- **How do you incorporate FE inspectors' findings into your future planning and dev. of ICT policies for teacher training?**
- **How do you differentiate between ICT and non-ICT lecturers training needs?**
- **What steps were taken to include the views of FE lecturers?**

Assessment and feedback

- **What procedures do you have in place to ensure that FE colleges teach ICT according to your organization's policy?**
- **What assessment procedures do you use to establish if learning of ICT for teachers is taking place in FE?**
- **How do you obtain feedback from the inspectors?**
- **What is done with this feedback?**
- **How do you measure success of your policies?**
- **Are your policies working, if yes, what evidence?**
- **Who do you answer to and provide feedback to?**

Involvement of partner organizations

- **Why are there so many agencies involved in establishing ICT for FE teachers?**
- **Who else do you have partnerships with when delivering ICT to FE?**
- **What activities relating to ICT training for FE teachers do you do with them?**
- **What is your organization's relationship with DfES?**

What is your organization's relationship with LSC?

Thank you very much for this interview.

APPENDIX E

Transcript samples of participants

Transcript of LSDA

MS: How would you define your organization?
Are you a government agency or would you describe your organization as a promoter or developer of policies?

LSDA: I think the organization is described as a research and development organization. I have an information sheet, which explains our business and the different activities that we do.

MS: You are not a government agency?

LSDA: We are funded through the Department of Education.

MS: How does your organization differ from other ICT policy providers?

LSDA: Well we are not an ICT organization. An organization who provides ICT for teachers are called BECTA (British Education Communications Technology Agency). Their business is solely ICT related. Our business is solely other forms of education policies. So we look at teaching and learning and technology is an integral part of that.

MS: How is your organization meeting the training needs of everyday use of non-ICT lecturers?

LSDA: I think what we do is putting into place good practice and how people how to develop systems and how to develop staff development activities to improve both the teaching aspects and student achievements.

MS: So do you talk to the staff development officers at different colleges?

LSDA: We have different departments we deal with dealing with staff development.

MS: Why were the ICT or ILT policy developed?

LSDA: I think its because eem.. when you are looking at teaching and learning …technology is seen as a way to compliment what lecturers normally do. Now technology is everywhere…students are demanding it. Lecturers needs to be up-skilled to keep up the pace with what ….how the curriculum has changed and how the curriculum is being complimented with the use of ICT in the classroom. **So the policy and practices reflect the whole ethos about e learning or 'blended learning' where you got traditional teaching with technology to blend in and give students wider choice and approaches.**

MS: Where do you get your original instructions from regarding ICT training for every lecturer?

LSDA: Well we usually do national surveys; find out where technology needs to have an impact within colleges. **We work with partner organizations such**

as BECTA and NILTA and JISC people. We all come under an initiative called the National Learning Network (NLN). NLN is an initiative that was set up by the government in since 1999 to look at way of promoting ICT and ILT into colleges. So, one area is **infrastructure**, one area is **content**, one area is **skills** and one area is **management.** The four areas ...the infrastructure for instance is about connecting all the college together so they can access through JANET.

MS: What is JANET?

LSDA: JANET is Joint Academic Network is used by all the universities by connecting them together and share information. The idea was to connect FE as well. Currently all FE colleges are connected to JANET. The infrastructure is there now. The National Learning Network is developing the CONTENT to sit on a network so that they (colleges) can access high quality resources and we put together a training programme to how to use the resources across all the different curriculum disciplines and ensure that the policy that is set up to improve the teaching standards through technology.

MS: Is your original instructions come from the DfES?

LSDA: DfES is part of the NLN.

MS: So let me understand this. We got the DfES at the top giving instructions of what you (LSDA) need to do and then you got the NLN and under this unbrella we got all these other organizations (like yourselves and yours partners – individual organizations such as JISC, BECTA) all have a part to play. What I don't understand is why is there so many different providers and different organizations.

LSDA: I think that when the NLN was set up they looked at all the existing partners and worked out which of the partners had strength is which areas to promote and so in terms of LSDA our strong area is research and staff development. So we got a contract for that because that's what we are good at. The BECTA were the managing agent for the NLN and so they got content and some other bits and pieces. **Basically they are using the strength of all existing organizations which are set up by government promote teaching and learning or one or the other. We are not a ICT organization. We are good at Staff Development. ICT in staff development came into our remit.**

MS: To what extent were FE lecturers consulted in the early stages of policy development? You know about their training needs. I know you have talked to the staff development officer but does the LSDA consult with the people who actually need the training such as FE lecturers?

LSDA: We have consultation not just about ICT issues, not just about ICT because ICT is an small area part of teaching and learning. LSDA deals with teaching and learning so in terms of gathering intelligence and information,

it,s not necessary through ICT or through general routes about standards and accredition and a plat rough areas which we need to look at. For instance we have got a department which does key skills and so skills people will have funded through the DfES. They will have different funding. My area's NLN that's been funded through the LSC rather than the department of education (DfES). We got different funding bodies funding us for different programmes.

MS: How much impact has your organization LSDA had on the development on FE lecturers on the use of ICT training.

LSDA: I think if we go back about nearly 8 years now, LSDA has been very forward in promoting ICT in the Post-16 Sector. We got a contract in 1990 to 1996 to develop the first staff development programs on ICT in England called QUILT, which is Quality in Information Learning and technology.

MS: LSDA developed that, did they?

LSDA: Yeah. We were around for 5 years before NLN.

MS: But we are now under the NLN umbrella. Aren't you?

LSDA: At the moment we are. We funded solely to develop staff skills on ICT in colleges following Higginson Report. So the recommendation of Higginson's report was to set up a staff development programme and LSDA got the contract to do that. So I came to LSDA to work on that programme.

MS: How does the ICT policies take account of the different levels of skills and knowledge of these FE lecturers?

LSDA: I think what we try and do is find out the ILT learning curve of where staff are, colleges have their own assessment methods and also their own staff development programmes dealing with ICT skills and now there is a difference between ICT skills and the use of ILT within the curriculum. ICT skills you can be competent with IT such as to use the Internet, to use e-mail and use Word. The generic skills or core that all staff should have. **We don't get involved in that side of the training, that is normally done by the colleges.** What we do is show staff apply the skills imaginatively and innovatively and to use it to compliment what they do within the normal classroom activities. So balancing what they know in terms of the skills that they have learnt or the software or give them a model of how they can apply in teaching. Or technology that they may need to engage them one way or the other. Or might need technology to help them to improve the way they approach assessment.

MS: Do these FE lecturers come directly through to LSDA for their training or do you go to the college and then…?

LSDA: We don't to one to one or one to many training on a local level. What we do is on a national level. The JISC RSC were set up to develop activities within

the regions. All the staff development activities that we put on is at a national level.

MS: So how is that delivered?

LSDA: **What we do is we put on event for instance at the moment I have got an event called ILT and Construction. It's publicised to all colleges to attend.**

MS: So what is it, is it a conference?

LSDA: Yes, a conference and workshop. We bring staff together to share practice. **We look at who has developed systems or models and using it. It could be a lecturer doing that. We invite lecturers to come and share that practice with other lecturers. So it's like building models of good practice.**

MS: So you do have some sort of measuring system?

LSDA: No. That's difficult to do at a national level. Unless there is a national benchmark system, in which is used to measure that. We leave it to the college. Within the college, each college develops which we call an ILT strategy. So the strategy could be that they wanted to look at a benchmark and train their staff to a certain level and they use that as part of the college staff contract .....
When we go a calendar of events and send them out to the colleges, the colleges look at which staff is appropriate to come to the event.

MS: Are these for the staff development officers only?

LSDA: No the lecturers.

MS: These lecturers than return to their colleges and pass the information to others.

LSDA: Yes.

MS: Some people say that your organization's policies are too broad or is open to interpretation, what is your opinion?

LSDA: We have got a clear defined role set up by government to help colleges set up systems and improve their systems and also...so I think our clients know what LSDA is about. So there is no confusion about what we are trying to do.

MS: What pushes you to go on doing these conferences?

LSDA: We are in a business where, we get data from various statistics from the government or ourselves as research. Research into teaching and learning. Are students engaged because, so take the because and develop it. One way is through technology and one way is through other means. Usually

government says do it and this needs to be done and we do it. Factors are influenced by research findings and also through intelligence from government and our partners.
We know that x amount of colleges have gone through bad inspections, we get to improve the standards of the college.

MS: Who tells you this FE Inspectors or the government?

LSDA: Well Inspection reports tend to .....

MS: Do you talk to ALI and OFSTED?

LSDA: Well we don't talk to them directly. OFSTED and ALI report go to government and then government say we got problem and says we want LSDA to help.

MS: How does your policies cater for hourly paid or part time lecturers?

LSDA: That one difficult things about .....in our activities we tend to find mainly full time lecturers attend. Colleges release full time lecturers.

MS: How do you take into account the needs of non-ICT lecturers who teach say history in a classroom setting?

LSDA: That's what we do. A lot of our activities are set for non-ICT teachers and not for ICT teachers. We find might have a .....because the nature of the subject is about teaching technology to students. The only thing we teach ICT lecturers is how to apply different methods of teaching rather than how you can use the technology because they know that already.

MS: So you teach them techniques.

LSDA: Yes.

LSDA: We put on a programme of activities. We get a remit from the LSC to say their should be a training activity or event for all LSC programmes like Art and Design or other programme areas. We get a programme together and look at the different areas of ICT / ILT that colleges need.

MS: How do you what they need?

LSDA: We don't, at present we haven't got a mechanism to do a pre-research to find out what they want or what they need but at the local level

MS: So the only bit of real requirements information that you are getting is from the DfES after they have read the Inspection reports. So you don't directly talk to FE. Information comes either from the funding council or the DfES.

LSDA: As well as that within the NLN umbrella, we do get intelligence from different regions. We have regional coordinators.

MS: How do you ensure that FE colleges are training their staff according to your of DfES policies?

LSDA: We don't. It's like we can take the horse to water but you can't make him drink it. We can give the tools but we can't do anything.

MS: Why are FE Inspectors do inspecting staff development in FE?

LSDA: It's a difficult one. It's because inspection is to do with checking that if they are improving standards. It could be student achievements or retention. They don't see staff development to be inspected separately.

MS: Shouldn't they be inspected too?

LSDA: Hmmm. (Nods head to indicate yes).

MS: How do you incorporate the FE Inspectors findings into your ICT training and polices for FE training?

LSDA: We plan our activities with particular departments for colleges with bad grades, they got bad teachers there and they need to be developed. So we organise activities to help them. We get colleges asks us to come in a do training for them. Usually after they have an inspection.

MS: How do you measure the success of your policies? Where do get this information?

LSDA: Every activity that we put on we got an evaluation for the programme. I have evaluation report which goes to the LSC of the progress being made.

MS: Is your polices making a difference/

LSDA: Oh yeah. We get repeated contracts. Our key skills are running for 8 years now. We are making a difference and well equipped to providing a good service for this sector. LSDA has got a good reputation.

MS: Involvement of partner organizations. Some you already mentioned earlier. Why do you think there are so many agencies involved in establishing ICT training for teachers? Every does different parts.

LSDA: This sector is very big. No one organization can take it.

MS:

LSDA: NLN has got strategy which has been driven by the partners. The partners report to NLN.

MS: Do you look at JISC as your partner?

LSDA: **JISC is our partner. NILTA is our partner, BECTA is our partner, DfES. NLN reports to the LSC. LSC reports to the DfES. The way the funding works is the DfES gives LSC money for ILT development, the LSC give it NLN partners.**

MS: Do you have any details of your conferences that you organize.

LSDA: If you give me a second I might be able dig it up.

MS: Thanks Danny, thank you very much.

Transcription of interview of the Staff Development Officer
College A

MS: Thank you for agreeing for this interview. As I mentioned earlier that I am looking at to what extent do non-ICT lecturers use ICT in their teaching and also what problems and challenges they face when integrating ICT into their teaching. What internal / external policies do you take into consideration when planning staff development sessions for non-ICT lecturers?

JG: We have a CPD plan for the year. We have a plan for the whole college that's over and above ICT.

MS: Sorry what is CPD?

JG: That's Continuous Professional Development.

MS: Thank you.

JG: So, what informs that, are the College Strategic plan, National priorities, and lesions with Heads of Learning Programmes. How the identify the particular needs for that area which come out at the lone management meetings. So those are the kinds of aspects feed in the CDP plan, we eventually design.

MS: Do you use any external policies?

JG: Well, the ILT. The ILT curriculum committee of which I am the chair. Again has a whole range of commitments, enhancing the learning process by using ILT / ICT. So there certainly a ILT strand running through the CDP plan.

MS: The current government would like to see all lecturers to be qualified and use ICT in their teaching. What are we doing to cater for that?

JG: FE is different. At the moment for a teacher to become fully qualified they have to pass a test on IT, communications and numeracy. The IT / ICT paper is demanding and challenging. At the moment we are trying to professionlise FE. So all new teachers status in FE are required to be qualified by a number of years. Existing lecturers are being encouraged to acquire qualified teacher status, we can't force people to....there's all sorts of inducements of many training available. Now alongside that strand of qualified teachers status which is underpinned by the FENTO standards. There are the FENTO teaching and learning standards, there another whole lot of standards called the ILT / ICT standards. Now those standards are the one's that I am addressing this year. Trying to find a way to deliver training to the whole of the staff force is a huge undertaking. In other institutions there is no choice, every member of staff has to take three modules from the blah, blah, blah qualification.

I think there is some sort of challenge in this institution in terms of compliance. We try not to force people, we try to encourage people and we lay on the necessary training. So at the moment we are moving for all teachers to gain qualified teacher status. Now we got to get a programme in place to run

alongside that and as well as doing that we need to think about IT / ICT. So at the moment the FE resource (inaudible) BECTA, I forget what they are called they have put together a ICT practitioner's programme. An ILT / ICT practitioner's programme another words a whole range of materials are now available. We can buy the materials and make them available for our staff. How we choose to deliver them to our staff is up to use. My response to that .... and it only happed this year, and they are running a pilot, so number of colleges are taking part in this pilot. My response this year was to try to offer a qualification to staff to match ILT standards. Other colleges are running that and mapping over the ILT standards. So we thought that if we ran that particular programme in the first instance on a small scale and we got it right, that we would like to roll out to all the staff. Not all the staff will want to do the full qualification but it may be as in other colleges, if we discover that parts of that course work, we could make it and suggest it as a requirement, that all staff get three of the five modules and they can do it over the year, through staff development, they can do it on-line. There's all sorts of ways they can do it. To be honest, until we kind of rolled out this qualification and until the full programme has become apparent and real, I am not in a position to planning it. I am hoping to get the whole college where a person who...is championing a) the Edexcel Teacher Certificate programme we want to use but she is actually saying we .. staff do not have a option, they have to engage in ICT/ILT. Now when I hear her speak, and I thought, yes I will be at your college, I will be happy to engage with it. I am interested to see, she said there is not an option not to engage. So we need to be moving to that kind of culture. So other colleges provide us with examples and models and we have got to find the right model that will a) result in staff wanting to engage and then we got to support the staff engaging with the necessary resources and technical support. So its not it's someone head, its trying to make it happen.

MS: Thank you. You probably already answered this question. How do you identify the needs of non-ICT lecturers when you are actually planning the staff development days??

JG: Again, because the development cycle, where all staff should be engaged which includes the line management system, emmm.. in the line management scheme your first.. you have three meetings a year, so the first meeting will identify targets, your second meeting will monitor progress and your third meeting will the review for the year, will also preview the following year. At the first meeting you should be identifying you staff development needs.

MS: That includes ICT needs?

JG: Any needs. ICT is one of them. That should then fed back to the Head of Learning Programme who then complies a profile of their programme area which then comes back to Rosemary or myself which we are trying to put together for our plan for the following year.

MS: Do you feel that single sessions are enough for these non-ICT lecturers?

JG: We have run a number of single sessions and I know single sessions are not enough. What we are trying to do this year. I have been asking for a number of mentors available within each programme area. Ideally they should be ICT/ILT mentor in every single workroom. So any person, anybody can go to and say this is what I want to do can you give me an idea. Three years on we have been finally given endorsement to actually we got some I think it's 10 or 12 thousand pounds to pay for a group of ICT / ILT members. I have a job description. I think its going to be something like 2 hours a week commitment. What I am expecting these people to do is buddy up with someone else on the scheme for one hour a week they work together every single week and generate material and think through issues. For ½ an hour of the two hours they will be available for on hand mentoring, it could be anything like 'I can't work this e-mail, can you help me? Or' I have forgot to' ....and they could also attend ILT curriculum meetings. Say its 12 mentors, I would want them to come from all programme areas. Every programme area has an identified mentor people then talk to and follow their needs through. I have suggested that these ILT reps attend the ILT teacher-training course. Without people in position, known name and face that is local to you and I mean local not I am in Wandsworth and you are in Putney, I need to be in the same floor as you, it won't work. Non-ICT lecturers need is a awareness how their ..their environment they teach in can be so much enjoyable, it can be enhanced. Its not going to replace anything that they do, it will complement what they do. But they need to have someone on hand locally and share good practice.

Plenty of ideas how it should be not how it is at the moment

MS: How often do you actually offer staff development to non-ICT lecturers?

JG: There are five staff development days, two of which we are responsible for. So two we have to manage. The other three are section or programme area led. So we are responsible for two specific all day affairs. But in terms of what happens throughout the year, it tends to be response...if people want to do a course that I\s not already available, I will find a trainer, set it up.

MS: At the moment many non-ICT lecturers are saying that they only receive one ICT session during staff development?

JG: If they didn't ask for that training they couldn't get it. The head of learning programme may not be fully aware of it. We have a central staff development budget and this year we have decided to devolve an amount from that budget to programme areas. And it's the programme areas know what their staff needs. So its going to be a sum similar to the public get. It will something like 5000 pounds to use it as they see fit.

MS: During staff development sessions when you are running an ICT session, all lecturers are requested to attend including ICT lecturers. Some staff are saying that it is a waste of time for them?

JG: I don't want ICT staff to attend but I am happy for them to. But for non-CIT staff will benefit immensely from them.

MS: what follow up support do you provide for non-ICT lecturers after a staff development session?

JG: Certainly, everyone fills in the Continuous Personal Develop (CPD) forms (a) they are asked to evaluate the session and (b) they are asked to identify their needs and further training or support they require. We log all their comments If we can follow them through, we do. But if nobody states what they want because they don't know what they want yet, there's probably a problem in that loop. We do have ILT reps across the college. But we get all this 'we haven't got the time' but we do have ILT reps and those are the people can come back to me a say what they need. People knowing that's available and recognising the communication. I don't think enough people realise that's what they could do. We got people in position but weather they are doing anything significant, I don't know. I mean certainly I could give you an example, ESOL is just incredible, if you want to find out about how ICT works in an area where they are not ICT lecturers, ESOL is fantastic. They are all out there. All of their students have access to the network once or twice a week no matter how limited their language is they are engaging with ICT and ILT. It really is worth going to look over there.

MS: What monitoring process is used to check on the progress of non-ICT lecturers as part of their CPD?

JG: Again, the only monitoring that we have got is the CPD part A + B. Plus there's the line management.

MS: What incentives could South Thames College provide to non-ICT lecturers to take up ICT?

JG: At the moment it's about ensuring that all lecturers are qualified and we are offering training for that. That's one incentive. Within that training we are offering ICT/ILT training. So that's the people who haven't got the qualification. Those who have already got the qualification ICT/ILT. We have run session on staff development days and they do generally generate a lot of interest. A lot of people are carrying on for example when we did the emm.. PowerPoint training. To be honest until we get a virtual learning environment something like the blackboard. People are in an awful position they can access the college Intranet from their desktops at the moment because we are not connected to it. Because it's a different network, isn't it?

MS: Yes.

JG: As much as you want to actually utilise those resources, makes it almost impossible to do. The investment made to the blackboard this year should provide greater opportunity. Actually, the other training option is Learndirect. Briefing went out to all staff that if they want to do IT they could training through Learndirect at home or distantly, we would pay. So there is that option as well. Emm.. and there is the other option of IT Skills ICT/ILT is the ECDL qualification which we advertised last year on which I said we had only 30 places. We are doing by CD-ROM's rather than classes. I had 30 CD-ROM's

and 17 people were interested. I have tried running classes for IT for non-ICT lecturers and we tried to run the ECDL taught classes, nobody came. So it wasn't cost effective. So we offered CD-ROM's they can do when they want or they can take the CD-ROM's to the session and do it at their own pace. We are going to be carrying that on this year. There is a resistance. Staffs do not want to attend classes because they don't have the time. We have given them a CD-ROM and still they don't find the time. But this has been a better take up then previously. They can prepare themselves for a test that's on-line, they can take the test in 25 minutes. We are trying to make it flexible and easy as possible and it is those skills non-ICT lecturers need before they can really embrace ILT/ICT. We agreed that ECDL will be the base qualification. We are gonna have another 30 this year.

MS: Do you offer any manuals or guides during staff development sessions?

JG: Every single time we give manuals and guides. I still have copies of them. The Hot potatoes and PowerPoint ones. Yes we got loads of materials upstairs.

MS: What incentives would you give me?

JG: I really didn't answer that did I? The incentive that we could give them is free training, they attend the class and they get so many hours off their annual teaching time. I don't know that paying people to something is the best incentive, I don't think it is. Salaried staff it is part of their professional development. The incentive has got to be that its going to work in their classroom. The incentive got to be that you are being developed, the incentive has got to come from within us. We are willing to recognise it. We have had people take the ECDL test and passed it and these are non-ICT people and have managed to complete the 7 modules. They are absolutely excited. They found the on-line learning interesting, the found on-line testing interesting. If they are thinking about financial inducements, well we haven't got them to offer anyway. There certainly is TPI, Teacher Pay Infinitives, I don't have any control of how that money is allocated. I think the ICT/ILT champions should be rewarded.

MS: What kind of difficulties are you currently facing at the moment?

JG: Well, first of all, preparing the most appropriate session for a huge number of people, you are not going to meet everyone's needs. Secondly, the trainers to deliver that. Trying to keep abreast to what's going one, all on one day. It's not ideal. Its about raising awareness. What we should really have is a yearly programme and then staff should commit to attending over that year on seven or eight occasions. Other colleges do is that they have a yearly programme, they have a whole programme that's going for a whole week and people can practice what they have learnt. I think it's people own time management and their commitment to their job. We can't keep asking the college 'can you make more money available?'. Teaching staff need to stop and reflect and ask themselves 'what's happening in my classroom and how can whatever is happening in my classroom be improved'. I think they need that time to reflect and think about their training needs. What is possible and start modestly. (A)

What is ICT and what could it mean for me, which bit of it will be useful for me and what's my action plan to actually make that possible. But keep it really modest, if only one opportunity a term. Do it through the line management scheme. Identify it in your action plan or in team meetings. There is a box saying ICT / ILT, I don't think people understand what that means.

MS: How do you expect people to understand when information is not being shared?

JG: It suits people to know that our communications channel are not brilliant, because it keeps them in the kind of ignorance, its actually a bit more comfortable then when you do know its there and you are not taking any advantage of it, then what's the excuse?. I think people need to ask questions of their Line Managers. The Line Managers can only say 'I don't know, I will ask someone about it', That's all I ever say, I don't know, I will find out. Be prepared to ask questions, we are only too happy to criticise. They might find out the answer that may require them to do something. I don't know.

MS: Well, thank you very much.

JG: Thank you.

End of transcript

Transcript of Staff Development Officer
College C

MS: Thank you very much for taking part in this research interview for my Doctorate programme. (Read from script). The government has been putting so much investments in schools but not that much in FE. So what I am looking at is how well is ICT integrated in teaching and learning?

CV: When you say ICT, what do you mean?

MS: Information Communications Technology. ICT is suing computers, IWB, Moodle.

MS: How do you see your role as Staff Development Officer?

Not cetralised

CV: I manage the training and development floor for all of the staff for both academic and support and provide training according to their needs but within this college its not centralised so they all do random things that I don't know about.

MS: In your opinion what ICT training should non-ICT teachers have, non-ICT means those people who don't teach ICT as their main subject area. What kind of skills do you think they should have?

Software

CV: They should all be able to use Word as a basic just so they can do lesson plans, schemes of work, etc. They should also have basic word skills and if they are teaching maths they should be able to use spreadsheets capabilities and on top of that they should be able to use the IWB AND Moodle.

MS: How do you identify individual lecturers ICT needs?

Identify needs

CV: I can't identify their needs because I don't know what they are doing. Some of their needs comes through to me after observations …if they are not using IWB, they are not putting stuff on Moodle, they are not using ICT in a productive way in the classroom. So if anything like that comes to me through observations…some things comes through appraisals and then I can look at developing a group of individuals or individuals on their own. It comes from the observation teaching teams or TTL or it can come from Heads of School or themselves.

MS: Do you identify the needs of part-time lecturers?

CV: They are same as any other lecturers in the employ of the college but agency is different because we don't train agency staff because ICT training tends to be very expensive. If it's IWB or Moodle then we run in-house programmes for that and agency can be included in that.

MS: Is it compulsory for all lecturers to attend ICT training?

Mandatory

CV: It is mandatory that all lecturers attend. IWB and Moodle. However, they way the college is structured I don't have any input into the IWB training or Moodle training. That is a different department to the college. Although it is mandatory, I don't have any influence over who's done it or what they are doing.

MS: What incentive do you provide to non-ICT lecturers as an ILT staff development officer for them to take up ICT? Or does the college provide incentives.

Incentives

CV: We don't provide incentives for anybody. At the end of the day you are employed to do a job and part of your contact is that you are ICT literate and that you make use of IWB and that you make use of Moodle and as training is readily available there is not reason why....its part of their contract.

MS: Is the use of ICT such as scanners, digital camera and printers, Intranet, laptops and PCs are they covered in the staff development sessions?

CV: It depends....for things like scanners not everybody will need it or know how to use a scanner. The departments will take care of that if they need to do any scanning training, then someone normally in their departments will show them how to do that. But if it is to do with digital media then they will need to go on an external course. They will have to complete an SD1 form and we will look at where it came from and if it is a call to their role or their strategic need. If they just fancy doing it then no.

They don't have an understanding of the teaching workload, they number of times an assignment has to marked and remarked for them to pass. There is also the time to prepare the lesson, which can be double the teaching time. For every hour of teaching I need the same amount of time in preparing worksheets, slides, other materials, handouts, activities, research...all type of students you are dealing with will require additional time and those of who have alower level of understanding with language issues...many of them need guideance and many of them lack confidence....not to mention that many of them have behavioural issues which means further support.

Courses offered

MS: Could you name some of the ICT training that you have provided for lecturers so far?

CV: I have only bee here for just over a year now. We provide IWB, Moodle, if staff wanted to do excel or word, etc. We had staff from digital media Photoshop, CAD, just depends a whole range of things because the college is diverse different people present different issues. If we can see a business can then we will.

External training

MS: Do you send any of the lecturers on any external training courses?

CV: Yeah, yeah. I think at the moment a lot of the staff in Engineering are doing an on-line teacher training course. A professional ICT program…I think there are about six staff in that area and some people from Health and Social Care.

MS: What funding is available for ICT training from the budget that the college has?

Funds

CV: I don't specifically allocate money to ICT training…well I do to some degree. I do have a large budget but I have to see what the course strategic needs are when the college is moving forward from year to year. So there is a portion of money put aside for ICT within each area depending on the areas need. I don't know how much the college gets in total.

MS: Do you get any funding from anybody else to run these course?

Funds for ICT

CV: Not to run ICT course. I get additional funding form the LSC for initial teacher training. I was given additional money for ITT for people who had not qualified as teachers but not specifically for ICT, no.

MS: Does the college have a strategic plan and does it include ICT?

Strategic plan

CV: The strategic plan does not include ICT, it does have an ILT strategy is controlled by the Computer Information Service and within their strategy they have money put aside for ILT activities. Because the two things are not joined up I have to find money for ICT training and they have some as well…..but it is not joined up at the present time. One of the guys over there is their training officer. These things are joined up.

Motivation

MS: How motivated do you feel the teachers are in taking up ICT?

CV: I think 50% of the staff are forward thinking, they realise the value of ICT and are happy to take it forward. I also think there is 25% are fearful of it and have been teaching for quite a long time and are not used to technology. So they scared of these things of they are reluctant to come forward and some of them are apathetic about it because they are been made to do or because it has not been part of their appraisal process. They think I did didn't have to do it before so why should I have to do it now, its not part of my job. There is resistance and there is fear of making more work for them but if they used it they would realise that it reduced work them. There is things you could just roll out, cut and paste. It is about changing the culture of the thinking in staff.

MS: What difficulties do you face when trying to deliver these ICT training?

Low takeup

CV: I don't deliver them. Staff come to me and ask for one off external training in order to fulfil their role. The other training is coordinated by CIS. But I know

that training is put on, there has been low take. There's been training enough to support all of the teachers that has not yet gone through and we still have a deficit of staff that haven't gone on the training. Again the way the college is structured…there is no reason to go… there is not come back if you don't. At the moment this causes a problem because training is not joined up with the ILT Manger. They do their own thing. Its frustrating for staff they don't know who to turn to or where to go…its very disjointed at the moment.

MS: What are your future plans for the ICT-related staff development?

Fear & resistance

CV: Future plans at the moments for ICT are that if…if things change there will be greater rigger for monitoring who's attended and what we do about staff who haven't attended. To support them to lose their fear factor. The present system doesn't allow staff to do their jobs properly the next big achieve is to train staff to use 'pro-achieve'.

MS: At the college we have high-tech student and low-tech teachers…what do you think about that?

Fear

CV: I agree. It's a bit frightening when young people come from school to college into an adult environment and the technology does not live up to expectations. And if you think I will go on to further education and the technology is less than I had at school it's a battle for the student to feel motivated and also I would imagine it is quite difficult for members of staff, they will feel challenged by their students, if their level of skills is lower than the student….then who are you to tell me ….who are you to teach me. It is a big problem

MS: A lot of teachers are telling me that staff development offers only blanket courses, they don't cater for individual needs. How difficult is that?

Cost

CV: Very difficult. If you do group training than it is cost-effective it bring down your cost. If you are sending individual on individual courses the cost can be quite big it could be £300 to £500. It can be costly.

MS: There is benefits in running blanket courses. So how do you actually cater for the individual needs?

CV: For most of the ICT training needs to fill in SD1 form and tells us what they want to do. We will send them on a training. Edexcel may change one of their criteria or a member of staff may be teaching a new program …has to have that skills.

MS: Do you have a monitoring system as to check who has done an ICT training?

Monitoring

CV: We can check who has gone on certain courses. The system we have at the present time reports in a linear way. You can really see across a whole school....may or may not have done something. So I could look at your personal record and see what you have done but if I looked at your school it would not be there. The system we have at the moment is not fit for purpose. In terms of bringing us into the 21st century technology I kind of feel since I came here I have stepped back in time of 10 years in how technology is used within this organisation.

MS: Do you get any feedback from lecturers when they complete a particular course?

Evaluation

CV: When staff do a particular course they do, do fill in what we call a happy sheet they fill in on the day. If they are not happy with it they will come back and say...which is very helpful because we will not send anybody on that course again. There is only me and D and it is very hard to monitor 400 people in the college to see who's done what.

MS: The in-house ICT training courses that you provide who actually teaches on them? Is it ICT teachers or someone from outside the college or?

Cost of courses

CV: In-house programmes the IWB and Moodle is one of the lecturers over in Waterloo. If they want to do ECDL or Excel or digital media ..if there is a course running within the college they can go that. The college still charges me full cost provision. I don't ..we don't get a discount for it which again is a funny way of working. People think internal courses don't cost anything, it is a full cost provision. I am robbing Peter to pay Paul.

MS: What other forms of support for teachers are there to take up ICT?

ILT Mentors

CV: There is a Moodle guide, there is a IWB guide, there's staff on Web about it, there's staff on Moodle about it. There is also ILT Mentors within the organisation. They been advertise, they been put forward. Everybody can access them but the take up is very very poor. People for whatever reason don't want to engage with it. I think its because its another thing they have to do rather then seeing it something that will enable them to do their job better and more effectively.

MS: Have you carried out any survey to find out how the lecturers are doing in using ICT?

CV: I haven't done. I don't know if that's been done in other areas in CIS.

MS: ILT Mentors – what help does these ILT mentors provide for lecturers?

ILT Mnetors

CV: They will go and sit with the lecturers and access the Moodle, put things on Moodle or whatever. They can go with them into the classrooms and show them how use the IWB and how to use resources. You got instant access for students to use digital media within the IWB. Whatever the staff needs but staff have not taken up the opportunity. No.

MS: Do you know if lecturers get any remission time to take up ICT?

Remission

CV: Having been a lecturer, a CM and Head of Department in think it is up to yourself at the end of the day. I understand there are pressures but if you want to something you will find time to do. If you don't want to do it...then....if you are the teacher training and Learning leader helping other to use it then yes, you should get remission but if part of your core role then no.

MS: What access to ICT resources do lecturers have?

Resources

CV: I don't know what access to resources that they have. There is no resource bank that I know of. There might be staff in the learning centres I know there is staff among the digital media team.

MS: Is the Moodle /VLE is it being used effectively by the college staff?

VLE

CV: No. I would say only one or two members of staff who use it effectively. A lot of the staff is links to other sites its not actually useful. It's not linked to any independent study in anyway. I would say it is not being used effectively.

MS: Are you are that there is a drive to use ICT in teaching and learning?

CV: Yes.

MS: Do you believe that the lecturers are aware of using ICT?

Lecturers not listening

CV: They may be aware of it but whether they are actually hearing what is being said is probably not. What's happening in this college is the straw on the camel that will break the camels back at the moment.

MS: What would you like to changed in ICT to be used by lecturers?

ICT Driver

CV: Its difficult...well hopefully now there will be a greater drive from above to use ICT because ICT has not been seen as a key driver for some years. Hopefully that will change which will create a more dynamic environment which ICT will be use. Also it needs to come from top down from staff at the senior and middle management level to be checking ...doing one to one have you put your staff on Moodle. How are you getting on with it do you need

more support. Those conversations are not happening at the moment. I would like to see a big shift change in how people perceive ICT and their use of it.

MS: From you experience with ITT do you know if there is any use of ICT in that course?

CV: It includes in a generic way but it does not include in a special way. It not part of it.

MS: Any other course staff can do related to ICT. You mentioned EDCL?

CV: Staff can do EDCL but it's a full provision course. There is not discount. That's something I need to look at in terms to robbing Peter to pay Paul.

MS: Do you work any of the NLN organisations?

Policy agencies

CV: We worked with emm LSN, QIA, LSIS. We do in terms of driving up quality and standards. You can have organisations come in, demonstrate or deliver to staff...this is what a grade one lesson would like, this is what you should be doing...the problem is getting the staff will to do that. There is a problem with taking what they learnt and using it.

MS: The organisations that you mentioned earlier, do any of them come here or the college go to them?

Policy agencies

CV: I started a year ago I used to invite them in and I would run half-day course or two half days. I did different days different times and accommodate staff with different teaching routines even though staff would cry out for it but when you put the training on...they don't attend. I would spend £1,500 on a specific course that teachers have asked for....three teachers turn up that's not cost effective. I might as well have sent three individuals to an external course.

You should ask them why? We don't just do teaching on the same subjects...there are new units..working across sites...there is pressure all the time from lecturers, students management and department...if they don't pass we will out of a job...we push to get student through.

Equipment / Access

MS: What equipment do lecturers have access to?

CV: They have got IWB, they got the Internet. If you talking about equipment it is as it is in other colleges.

MS: Can you think any strategies to counter attack teacher not taking up ICT?

Strategies to help lecturers

CV: well hopefully if it is centralised we will do more rigorous monitoring, there will be more courses on offer. If we are going to get through this time with

Ofsted, then you know…we got to make that leap so one of the drivers is the post inspection action plan. At the end of the day if we don't then we are all out of a job…you know what I mean? I mean that's the bottom line. We have to demonstrate that we have the capacity to change doing ICT or we stand to fault to some degree. Some staff are way up high and some barely turn the computer on. What we are doing at the moment is going into the schools to find out where things are at…so we can bring the staff up to a standard level playing field so we can move forward from there. It's difficult.

MS: Thank you very much.

Transcript of B2

The current government intends to build a world-class skilled workforce and a UK economy capable of competing in the global markets. For this to become a reality, the government wants all FE teachers to be qualified and be proficient in delivering their subject areas using ICT in their teaching and learning. The purpose of this interview is to understand the perceptions and experiences of FE teachers in relation to this agenda.

Qualifications & future in FE

Number of teaching years in FE: **14 years**

Number of years at this college: **13 years**

Subject you teach in FE: **Business studies, accounting, finance**

Mode of employment: FT

Are you under-taking any teaching qualifications at present?
Yes. 14 years ago.

What teaching qualifications have you achieved?
PGCE

Did these courses include the use of ICT for teaching and learning?
No.

What do you understand by e-learning?
My under standing of it in the FE environment is a variety of ways students can access teaching learning materials or access assessment materials. Access IT in the classroom and materials created by IT in the classroom.

Use of ICT in teaching

What ICT equipment do you use in class?
A computer and a data projector.

How well does ICT lend itself to your subject area?
Very well because teaching financial accounts, you need to organise numbers and present numbers. To be able to use tables, to be able to use spreadsheets. That sort of thing is very helpful for the presentation of information and also assessments on-line. You can set formative or summative assessments based on multiple-choice questions on the blackboard.

How often do you use ICT in your classroom teaching per week?
10 hours

What advantages do you see in using ICT in classrooms?
Very simple advantage of making it look more professional, understandable and visible to learners. In terms accounting and finance it certainly helps the students to analyze their data

and present their own answers by using templates and things like that. It is obviously quicker to store it, present it, but I think for my subjects the key thing is use of special tables to organise data and for the students to sue similar materials.

What disadvantages do you see using ICT in classrooms?
Sometimes it can become too dialectic. I am lucky enough to teach HE students at the moment the major problems is of course the distractions, lack of concentration perhaps the younger students....when I teach FE the IT room was a fantastic place for doing financial forecast it also had it's drawbacks dealing the 16 year olds doing other things on the Internet and by juvenile behaviour. That is not a problem in terms of the more mature learner.

How has your student's learning changed as a result of you using ICT?
I think it goes back to this organization bit, I think students learning finance and accounting do find it much more easy to understand that calculated and presented format. I know of my colleagues present it on a white board, writing numbers all over the place. The feedback you get back from the students is very much the fact that they got a piece of paper that is A4 size, much prefer the format in some type of IT generated which understandable for the to follow.

How well prepared are you to deliver and support learning with ICT technology?
Not very really. I taught myself IT. My skills in terms of word, excel are practical but are limited and probably I do things the long way around rather than the short way round. Blackboard is also very much self taught. I probably use a small percentage of it's power.

Barriers using ICT

What do you see as barriers to your development of ICT skills?
The lack of ICT equipment in some classrooms, which is a problem. Certainly knowledge and time to develop these skills.

What are your fears in using ICT?
Not as much as I used to have. I get a little bit lost on the blackboard, but not terribly.

What strategies have you used to overcome them?
Trail and error. You can normally undo most things that you have done.

Do you feel that your students know more than you about ICT?
Some yes.

What are your concerns about new technologies arriving in teaching?
I suppose one of my concerns is that there is for some people there is that it might go the other way. Having not used ICT in the past they may cumber the potential of them. I know one of my colleagues is a very knowledgeable guy but if anything he is missing the human touch of certain things in the lessons. A blackboard can deliver everything whereas I still feel that the black board is a subsidiary tool, which is very effective but is only a part of the overall learning but the danger is that it takes over the whole lot.

How do you see your future as a lecturer in FE in the current climate?
I see it in general I teach mainly in the HE part. I think this difficult to answer as each institution is different. OK in our institution we have some frustrations about management and resources as in time resources and not physical resource. I don't actually see the terrible

depression that many colleagues in FE other colleges. The inspection does not this college is excellent. Probably where you are you are better off.

Internet & Virtual Learning Environment

How often do you use the Internet for teaching purposes?
When I taught innovations and enterpernalship a lot but when I teach fiancé less.

What do you mainly use the Internet for?
Research, example and case studies.

How often do you use Virtual Learning Environment (VLE) in the college?
20 times a day.

How useful do you think the VLE is for your students?
It's very useful. It can become too useful when students think they don't have to come to lectures, they can just read the material on the blackboard. It is not used to it's maximum for other things like on-going assessments, planning their learning and monitoring their performance.

How do you feel about teaching your subject as a distance-learning course in the future?
Not very comfortable because I think accounting and finance does need the supportive element of person to person. Apart from those who are very strong and well that's the key thing I think.

Government related issues

What do you know about the government's policy for new qualifications for FE lecturers?
Not much.

The government also wants all FE lecturers to use ICT in their teaching & learning. What is your opinion of this?
It depends what they expected of this. There are still FE lecturers who use OHPs and transparencies, issue poor quality handout. In a very simple sense, the equipment should be used to provide better quality learning materials. The use of blackboard within control I would suggest would be a good idea for everybody. The need to use it in the classroom all the time I think should be based on the subject area and the type of students. For young 15 years old students using PowerPoint slides would be inappropriate using interactive stuff on individual terminals would be appropriate. Should be used in the classroom but should be based on the subject area, the age group and the learner.

Inspections

FE Inspectors will assess your use of ICT in the classrooms. How do you feel about this?
Fine.

Do you feel ready for the inspection? Why?
Well I don't see any problems with that, no. provided of course that physical resources are available. In our college I know that we are quite well off but still not every single classroom has it. If an Inspector was walking in and I was being inspected with appropriate ICT resources.

What do you think about the college ICT resources such as equipment?
Mixed. There some is and a lot isn't.

Your ICT related training

How often do you receive ICT training per academic year?
It depends if you want to take it or not. It is offered a lot but much of is not available to the lecturers because of the teaching timetables. In our college there is a new ILT division which provides lots and lots of opportunities for ILT but all of it is delivered during the day when staff are teaching.

I have never attended these sessions.

Which ICT related training sessions have you attended?
N/A

How has these ICT training sessions helped you in your role as a lecturer?
N/A

How are your ICT training needs met?
They are not, I do it myself.

How satisfied are you with your ICT training at the college? 1 to 5 (1 = very satisfied))
4

What external ICT related training have you attended?
No.

What funding of courses for ICT have you received?

No

What ICT related (equipment & software) have you learnt by yourself?
Word, excel, PowerPoint, blackboard, e-mail. That's about it I think.

What ICT training materials have you been given by the college for self-study?
We were asked if we wanted some manuals for different programs.

What would motivate you further to take on ICT?
It would save me time. It would make me more organised.

How can Staff Development Officer help you in further ICT training?
Provide their training at times when people can attend. BE MORE ACCURATE in the training that you need. I been to a number of blackboard training events at the Kingston University and not here. That were just so repetitious. I want a more detailed and new knowledge. There is no very good diagnostic assessment on the training that you need. You end up going to something that you already know about. It seems that colleges and universities are chucking in some training.

Support for you

In the college do you have a personal laptop or PC for your exclusive use?
The answer should be NO. I do have one but no one knows. I don't officially have one. I have got a computer on my desk. Unofficially provided by my previous boss in a different faculty.

Do you use a digital projector in your teaching in the classrooms?
Yes.

How much technical support do you get when things go wrong in the class or staff rooms?
The technicians are very helpful but there isn't enough of them to cover the building. Sometime there is considerable delay. Inconsistent is the best way of explaining it, unintentional of course.

There is normally not enough time to prepare a plan B.

How many technical support staff do you have at this site?
Not enough.

What else can you tell me about the technical support service?
They do try hard. They are good in what they do at communicating to us what the problem is. Access to them I would want better I would prefer them to carry mobile phones so they are contactable immediately rather than contacting them at their desk.

If both of them are busy trouble shooting or their somewhere else. Then I have to leave a message on their answer phone and it could be end of the lesson before there is any response.

Do you have access to an ILT Champion at your college?
No but now we have an ILT director and we do have a number of ILT…I don't know what they are called…they ILT specialist in different areas and they are supposedly available to disseminate good practice support.

How useful has this person been to you?
I have not used or received help from them.

What other support from the college would you like to help you in using ICT?
I need to have access to resources in the classroom. I have 5 groups of students and three groups can have access and the other two not. There can certainly be **time** for personal improvement for ICT.

Time

How much time do you spend per week on a computer to prepare your lessons?
5 or 6 hours.

How much time did you spend in lesson preparation before using computers?
The time has increased initially for creating things. Time has reduced in changing and amending year to year. Modifying rather than doing it all over again.

How much time do you spend self-learning or exploring ICT technology for teaching?
Depends really some weeks if I have a bit more time I might play around other times nothing at all.

How much time does the college provide for you to learn to use ICT?
Nothing specifically.

Computer use at home

Do you have a computer at home?
Yes.

What do you mainly use it for?
I don't.

How often do you use this computer for your teaching purposes?
I live literally 200 meters away from the college therefore pure policy as homework I do too much work as it is. I don't work at home. If I wanted to work on Saturday, I come here to do it.

Thank you very much for this interview

Transcript of B3

The current government intends to build a world-class skilled workforce and a UK economy capable of competing in the global markets. For this to become a reality, the government wants all FE teachers to be qualified and be proficient in delivering their subject areas using ICT in their teaching and learning. The purpose of this interview is to understand the perceptions and experiences of FE teachers in relation to this agenda.

Qualifications & future in FE

Number of teaching years in FE: **3**

Number of years at this college: **3**

Subject you teach in FE: **Business studies** **Mode of employment: FT**

Are you under-taking any teaching qualifications at present?
No.

What teaching qualifications have you achieved?
PGCE

Did these courses include the use of ICT for teaching and learning?
Only the availability of materials student using ICT.

No.

What do you understand by e-learning?
The ability to remotely access academic material.

Use of ICT in teaching

What ICT equipment do you use in class?
Overhead projector (digital projector). That enables me to run video streams, the hard disk and I supplement that with the use of DVD and video

No use of the smart board

How well does ICT lend itself to your subject area?
Very well indeed. If I am trying to elaborate concepts, diagrams then the ability to use colour graphic prepared diagram. To put those in front of the students. A picture is worth a thousand words is far clearer to those students than I would try to hand write on to a white board.

How often do you use ICT in your classroom teaching per week?
Constantly, every sessions. Not quite true, the tutorial sessions off written work. Mark articles etc.

What advantages do you see in using ICT in classrooms?
Clarity of imagery, present, content.

What disadvantages do you see using ICT in classrooms?
Possible risk of students or loss of student engagement. Two forms – one they may not turn up at all knowing that all the materials are available for them to remotely access. Therefore do they need to turn up to the lecture at all. If they do turn up to the lecture the classic engagement problem within a lecture theatre simply putting up PowerPoint slides are you engaging them are you actively involving them in the teaching session.

If the system fails the plan B is panic. I always have copies of the lecture slides if necessary I can fall back on to the hard copy. I try using transparencies here and I have one of the people who pushed very hard to have the projectors it in all rooms. But the transparencies gives a very very poor quality reproduction in comparison with the over head projector (digital).

If the system fails. In the tutorial sessions in particular I am using the marker pens and the white board. I have a very interactive session and I draw them in and actively create something with them.

How has your student's learning changed as a result of you using ICT?
I would hope that it has improved fundamentally because they are presented clearly with the whole course concepts. I could not imagine not using ICT.

How well prepared are you to deliver and support learning with ICT technology?
I have taken a one year Joint Examination Board (JEB) teaching and learning using visual technology.

Barriers using ICT

What do you see as barriers to your development of ICT skills?
The lack of technical resources within the college. It is only now that we are fitting rooms with computers and overhead projectors (digital).

Some time there is an element of creating materials. I have to invest a lot of time in that development. We could always do with a bit more time. Teaching, assessing and marking afterwards are the bane of a college.

What are your fears in using ICT?
My fears in using ICT is that PowerPoint .....the very strength of PowerPoint's ability to crystallize and synthesize. It's very weakness it can be use d as a substitute for proper reading. The slides are only outlined in bullet point. You have to attentively listen to the lecturer to get the flavour or actually reading the text. To get the full grasp of the concept.

Good students will engage and you will talk around what is up there in a powerful visual format. Poor students may be disengage, they may either not be there and absenteeism is a huge problem. If they are not there ...if they are the weakest students to rely on just the lectures, they may have not adequately read. Therefore, they may not be grasping what is being put up or they may be quite and not expose that ignorance.

What strategies have you used to overcome them?
Really the element of trying to pay particular attention to engage students to the material.

Do you feel that your students know more than you about ICT?
Undoubtedly from a technical capability machines, they are leagues ahead of me.

What are your concerns about new technologies arriving in teaching?
That, we have a crisis in the classroom. That there is a new generation which is cropping up where their whole learning process, their whole environment is a very quick very short fix electronic solution. And yet we cannot convey the educational content within that quick fix. Format adequately and therefore, the students are themselves are failing.

We can repair this by teaching students how the secondary level on how to study, how to learn, how to write and how to do numbers.

There is a general debate that I am aware of at a university level which include the terms is the illiteracy, the enumeracy and sheer ignorance of students emerging from secondary level (school). Students coming from FE level are simply being preped and therefore it is rote learning to take a test. The element there is they are not taught to reason, to learn. They are not prepared in creative writing. They are not prepared in the use of number and their general ignorance of knowledge which are outside the taught programme are dangerous. You have illiteracy, enumeracy and ignorance and added to that the element of being preped and they have become passive. Hence the question about attendance, etc. you do have a lot of students who do not know why they are taking a University degree or particularly motivated to take that degree.

Technology must help these students because technology in a sense is their world and if you cannot reach them through their world with the use of technology. The other answer what that quote "if we not meant to have e-learning then the classroom would have disappeared when Paxton first created the print".

NOTE: Schools are not doing their job?

How do you see your future as a lecturer in FE in the current climate?
There are 2 debates, one debate is the general role of the FE profession and very clearly as I was rudely reminded when I went in this morning to open up an ISA account, they flipped up my prior salary...I laughed...it has been a long time since I saw that. The comparison of the salaries etc. that are being given in the educational establishments. I am earning 1/3 of what I used to earn. So one element is yes, the lack of professionalism ...of course which is more deep which is the lack of joined up thought of government vision and government action. Like many of my colleagues are ex-commercial ...our strength is that we have been there seen it, done it and know the real world and to some extent we can create a bridge into the students on the reality of the commercial experience.

If you look within the University establishment itself, you still have a criteria of so called academic excellence, placing the emphasis on PhDs, etc. Some 2/3 of the HE courses that I have been involved in at the University level has failed to deliver student learning expereience because they are short of resources, allocating wrong resources, they are using a PhD student or somebody who has got a PhD on a esoteric topic are put into the front live on student delivery when they do not know that the subject that they are delivering and that they are passing that subject matter over to the students. Yet, if you look at my colleagues, we would not be considered for university appointment because the criteria for the university is research excellence and publishing of the PhD. The employment of the university is pushing the boundaries of knowledge, insufficient administrative knowledge, insufficient emphasis on students' knowledge in practice as evidenced by the selection criteria of those who into the university system. The contrast between on the PGCE and what ought to be happening in

the delivery and the practice and emphasis on the research is just total hypocrisy is unbelievable. An MBA student who pays £15,000 a year does not want a PhD student teaching them. I would go on to university to bring in the real commercial experience but that is a choice not available to me.

Internet & Virtual Learning Environment

How often do you use the Internet for teaching purposes?
In a sense all our black board, course materials, etc. is not just accessible not just on the Intranet but also on the Internet. Therefore, a remote access to all students. One could argue that it is constantly available to the students in terms of assignments we give them which is to take the concept and apply it to the real world, clearly their real world research is dominated by the use of the Internet research.

I run my teaching from a hard drive and I am not using the Internet at all. That's not true occasionally I would hyperlink out but a site that I would use. I do some research on the Internet.

What do you mainly use the Internet for?
I am constantly using Times on-line, etc. and electronic resources to keep current affairs embedded on the course content.

How often do you use Virtual Learning Environment (VLE) in the college?
All the tutorials and lectures are post on the black board site. That the University black board site and not the college black board site. I have not used the college black board site.

How useful do you think the VLE is for your students?
In the current environment it is irreplaceable as the communications, core content and communications in general of what is happening.
I come back to the fact that it is difficult to imagine a modern generation of students, being accessible and being able to receive and anything not provided within an electronic media.

How do you feel about teaching your subject as a distance-learning course in the future?
To some extent I have already been involved in that. In some course we do have the weekend sessions if you like, it's not an Open University, there are lecture tutorial sessions.

Government related issues

What do you know about the government's policy for new qualifications for FE lecturers?
Nothing.

The government also wants all FE lecturers to use ICT in their teaching & learning. What is your opinion of this?
I consider that the current establishment which lack that capability ....I went on a personal crusade to attain, to upgrade classroom facilities to include the use of ICT but the funding has not been available for that.

Inspections

FE Inspectors will assess your use of ICT in the classrooms. How do you feel about this?
No problem. It's part of my teaching.

Do you feel ready for the inspection? **Why?**
Yes.

What do you think about the college ICT resources such as equipment?
Appalling. Steps are being taken to increase the number of PCs for students, steps are being taken to the number of lecture rooms which are provided with computers and overhead projectors (digital). However, the equipment being used is very slow speed, very low level equipment but there is not nearly enough funding.

Your ICT related training

How often do you receive ICT training per academic year?
We I have only just finished under going JEB over an entire year.

Which ICT related training sessions have you attended?
Only the JEB programme. Other training had been available to me such as word, PowerPoint, etc. but I have chosen not to use that.

How has these ICT training sessions helped you in your role as a lecturer?

How are your ICT training needs met?
No. My ICT training needs are met on ad hoc basis. I heavily depend on a colleague who is very accommodating and allows me to peter him left right and centre whenever I get stuck. I have learnt a lot from my students.

How satisfied are you with your ICT training at the college? 1 to 5 (1 = very satisfied))
2

What external ICT related training have you attended?
Only JEB in the past three years.

What funding of courses for ICT have you received?
None

What ICT related (equipment & software) have you learnt by yourself?
I have personally gone on to Word processing, PowerPoint, Excel and certain back statistical programmes. I did these on my own back.

What ICT training materials have you been given by the college for self-study?
None

What would motivate you further to take on ICT?
If there were a good source of student (teaching) materials that I could only access using ICT then I would deliberately make a commitment to get those materials.

How can Staff Development Officer help you in further ICT training?
The emphasis would on to ensure the availability of materials for students, that's going to be the driver. If there were such materials such as .....if a picture is worth a thousand words then a video is worth a million words I would use them

Support for you

In the college do you have a personal laptop or PC for your exclusive use?
Yes, PC. No laptop.

Do you use a digital projector in your teaching in the classrooms?
Yes.

How much technical support do you get when things go wrong in the class or staff rooms?
Frequently. I phone them or run down the stairs and fetch them, if the equipment and I am in the middle of a lecture. I would fall back on traditional methods.

How many technical support staff do you have at this site?
The issue is much more the equipment failure. If we had a little bit more money spent on equipment, it would not be a subject of equipment failure.

What else can you tell me about the technical support service?

Do you have access to an ILT Champion at your college?
Hesitant....there are within the teaching and learning team....eeem on my learning specialist.

How useful has this person been to you?
Never used this person. Only when going through the JEB programme when encountering problems with course materials.

What other support from the college would you like to help you in using ICT?
I would come to the provision of the teaching materials. If there were source materials available then you would power ahead. If ICT is merely being used for a lecturer to transcribe his personal notes to a black board, then it has very limited use.

Time

How much time do you spend per week on a computer to prepare your lessons?
I would actually have to say that it varies but ....any particular lecture would take 3 to 4 hours for an hour lesson. 26.

How much time did you spend in lesson preparation before using computers?

How much time do you spend self-learning or exploring ICT technology for teaching?
Not that much.

How much time does the college provide for you to learn to use ICT?
None.

Computer use at home

Do you have a computer at home?
Yes.

What do you mainly use it for?

For preparing lessons.

How often do you use this computer for your teaching purposes?
Regularly.

Thank you very much for this interview

Transcript of A7

The current government is intends to build a world-class skilled workforce and a UK economy capable of competing in the global markets. For this to become a reality, the government wants all FE teachers to be qualified and be proficient in delivering their subject areas using ICT in their teaching and learning. The purpose of this interview is to understand the perceptions and experiences of FE teachers in relation to this agenda.

Qualifications & future in FE

Number of teaching years in FE: **2.5 years**

Number of years at this college: 2.5 years

Subject you teach in FE: **Business accounting** **Mode of employment: PT**

Are you under-taking any teaching qualifications at present? Yes.

What teaching qualifications have you achieved?
I did the first 2 stages of City and Guilds.

Did these courses include the use of ICT for teaching and learning?
No, just basically we had a session on smart boards and basic ideas of how to use that. It was just a brief session to acclimatize. We done basic word processing to type up our assignments and for Internet research.

What do you understand by e-learning?
If students are doing practical or theory. Students can kind of go on the computers and check out more resources, things like that.

Use of ICT in teaching

What ICT equipment do you use in class?
I use black board extensively at college. I don't use smart boards, I am not familiar with it. I only use lecture slides from the black board and use it for the students. I use the normal white board with marker pens.

How well does ICT lend itself to your subject area?
I don't know what you can do with a smart board but I am sure you can do plenty. It is quite user friendly in a way. I am sure it makes the class more interesting. I really don't about it to use.

How often do you use ICT in your classroom teaching per week?
Black board I use every time. 10 Hours.

What advantages do you see in using ICT in classrooms?
It reduces your paper work, that I good thing, generating all the slides and handouts. So you can use it over and over again. The slides can sometimes get outdated or I have to change the

course material then everything gets redundant. They University sends me the teaching materials (slides) I don't have to prepare anything myself.

What disadvantages do you see using ICT in classrooms?
The real big disadvantage is that you become too reliant on it and at times and the ICT does not work and you spend some time. Typically you go into the classroom half another before you start as other lecturers are in the class doing other things. The room is not available.

I don't use the electronic register. I am kind of trying to do it now.

How has your student's learning changed as a result of you using ICT?
Now they can access more resources from anywhere so they don't need to be in college for that. They are adult learners, they can do it in their own time. By using ICT they have improved their learning. Everybody can be in touch with their lecturer, so if they miss out on anything, they can cover it on their own. They don't have total reliance on the lecturers which in a way in good.

How well prepared are you to deliver and support learning with ICT technology?

Barriers using ICT

What do you see as barriers to your development of ICT skills?
My personal barriers, I am actually open minded to learn new skills. There were some training sessions made available in the evenings but because I am a part-time lecturer, I wasn't working so I couldn't really go for them. I did indicate that I would like to learn but that didn't really happen. I would be interested in learning about smart boards and learn kind of how to use it. I have not been approached by anyone to take up ICT. There was an email about smart board training but I couldn't really go.

What are your fears in using ICT?
The only biggest challenge in using ICT is if I am told to use it from tomorrow without training. When I first joined this place, the black board was new to me. I was apprehensive what I might do with it like don't interfere with this site as it is the main university site. That was the biggest fear that if I do something like be disruptive for all the students in all the colleges.

What strategies have you used to overcome them?

Do you feel that your students know more than you about ICT?
Actually I am quite familiar with ICT myself so I would not say definitely yes. I would not know much about programming. I know general stuff like Excel, Word, all these things I am familiar with like PowerPoint presentations.

NOTE: She has little idea about ICT and its capabilities.

What are your concerns about new technologies arriving in teaching?
I think all these things are really going to aid learning.

How do you see your future as a lecturer in FE in the current climate?
I am better off than other FE lecturers because I am teaching HE course in FE. I would not say that I would be here forever.

Internet & Virtual Learning Environment

How often do you use the Internet for teaching purposes?
Hardly ever.

What do you mainly use the Internet for?
Looking up information for course.

How often do you use Virtual Learning Environment (VLE) in the college?
Almost never.

How useful do you think the VLE is for your students?
No comment.

How do you feel about teaching your subject as a distance-learning course in the future?
By its own nature, it demands contact, demands the views of others, you have to have discussions, so sitting on their own will be really difficult in learning. For discussions we have groups to work so that they can help each other.

Government related issues

What do you know about the government's policy for new qualifications for FE lecturers?
It's a bit of an onerous (overburden) job because all of a suddenly they are demanding a qualification even for people who have been teaching for a very long time. If they don't have the right qualification they may not be able to get themselves to a permanent position. So it has to be done on a case to case basis and not for everybody. A person may have a very good set of qualifications but doesn't have a teaching qualification shouldn't hinder him or her teaching.

The government also wants all FE lecturers to use ICT in their teaching & learning. What is your opinion of this?
Not all subjects can be taught using ICT for example like Maths, it's a bit difficult to everything via ICT so it has to be done on pen and paper. It has to be a mix really. Some things are best done on pen and paper.

Inspections

FE Inspectors will assess your use of ICT in the classrooms. How do you feel about this?
The biggest handicap that could happen is that the laptop does not boot or your connections go haywire. I don't think essentially, no. not essentially. You should use ICT as a back up resource and not as a main resource. Using too much ICT you kind of forget to teaching students.

Do you feel ready for the inspection? **Why?**
No comment

What do you think about the college ICT resources such as equipment?
They have recently upgraded the ICT equipment a lot, we got some laptops and smart boards and stuff. So it has improved tremendously. People are using them.

Your ICT related training

How often do you receive ICT training per academic year?
Not very often, I am afraid.

Which ICT related training sessions have you attended?
Black board but the idea was generated by Kingston University because they require us to use Black board.

How has these ICT training sessions helped you in your role as a lecturer?
Yes, black board.

How are your ICT training needs met?
No. I don't feel adequately confident in using it. Like for smart board you have to be properly coached in that.

How satisfied are you with your ICT training at the college? 1 to 5 (1 = very satisfied))
In the past 2 years we were not required to use ICT really but the last 7 / 8 months is being addressed. [4]

What external ICT related training have you attended?
No

What funding of courses for ICT have you received?
No

What ICT related (equipment & software) have you learnt by yourself?
In my university I used word processing, PowerPoint, Excel and also some database but not extensively. I have used all these things in bit and bobs and in combinations.

What ICT training materials have you been given by the college for self-study?
No. I would be very keen actually if I know how I could use it. I have learnt things that I can't use.

What would motivate you further to take on ICT?
Already motivated.

How can Staff Development Officer help you in further ICT training?
I would like to learn how to use a smart board, such as how to open it. I emailed them about the smart board but nothing happened and then other issues came up. I don't know who else to get in touch with except the line manager and I don't anybody else would be interested.

Support for you

In the college do you have a personal laptop or PC for your exclusive use?
Yes. There is a desktop in the office, but its getting sorted out now.

Do you use a digital projector in your teaching in the classrooms?
Yes. The black board. Is that the one you use with the laptop. Yes I do.

How much technical support do you get when things go wrong in the class or staff rooms?
It is pretty prompt. They come quite promptly.

How many technical support staff do you have at this site?
Two I think there are two people.

What else can you tell me about the technical support service?
If you leave a message on the voice mail, they will get back to you. You have to go to the office and make they call.

If the system is down, I have lectur slides from previous years because last year we did not have any laptops so we had hard copies like acetates to use on the OHP..

Note: Leave student on their own.

Do you have access to an ILT Champion at your college?
No.

How useful has this person been to you?
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What other support from the college would you like to help you in using ICT?
I like to know what other things you could do with ICT would be helpful. Rather than talking in general that you should use this more but how to use it would be more appropriate, I think.

Time

How much time do you spend per week on a computer to prepare your lessons?
One hour

How much time did you spend in lesson preparation before using computers?
None, its not part of the big picture. It aright when everything is under control but there is hardly ever where everything is under control. There's making to be done, other things to be done. There's never any time when you are totally free to learn ICT.

Note: they want to inspect you to use ICT, but will not provide any time to learn it.

How much time do you spend self-learning or exploring ICT technology for teaching?
Not much.

How much time does the college provide for you to learn to use ICT?
None.

Computer use at home

Do you have a computer at home?
Yes.

What do you mainly use it for?
Internet, emailing, research. Preparation of college work.

How often do you use this computer for your teaching purposes?
I try to finish everything at work. I use it 8 hours for my own teaching study.

Thank you very much for this interview

APPENDIX F

Questionnaire Response Sheet

Questionnaire

How would you rate yourself in using ICT in your teaching and learning in your subject area?

Rate	Response
Very poor	
Poor	
Average	
High	
Very high	

Please select the software that you most frequently use in your profession.

Software	Frequently	Sometimes	Never
Word processing			
Spreadsheets			
Database			
Graphics (Photoshop, Coral Draw)			
PowerPoint for presentation			
Email (MS Outlook, Yahoo, Hotmail)			
Web Browsers such as Netscape, Explorer			
Programming (Visual Basic, C++)			
Desktop Publishing - Publisher			
CD ROM's			
Specialised software			
Social Networking sites (Youtube, Facebook)			
Other			

Please select which of the following you use in your profession.

Equipment / teaching tools	Frequently	Sometimes	Never
Smart board			
Video conferencing			
Virtual Learning Environment (VLE)			
MLE (Moodle, Blackboard)			
Whiteboard & marker pens			
Digital projector			
Overhead projector & transparencies			
Interactive whiteboard			
Flipcharts			
Other:			
Other:			

Questionnaire

Which of the following have you received training from your college or taught yourself?

Software	College Training	Self Taught	Never Learnt
Word processing			
Spreadsheets			
Database			
Graphics (Photoshop, Coral Draw)			
PowerPoint for presentation			
Email (MS Outlook, Yahoo, Hotmail)			
Basic PC know how			
Web page design			
Interactive whiteboard training			
Web Browsers such as Netscape, Explorer			
Programming (Visual Basic, C++)			
Desktop Publishing - Publisher			
CD ROM's			
Specialised subject software			
Virtual Learning Environments (VLE)			
Other			

	Yes	No	Don't know
Do you have an ICT strategy plan in your college?			
Do you have an ICT strategy in your faculty/department?			
Could you deliver your subject area on-line?			
Does your subject area lend itself to teaching online?			
Have you been offered a laptop for your use at work?			

Do you own a computer at home?

Yes ___
No ___

What do mainly use your home computer for?

Teaching work but done at home ___

Personal use only ___

Are you aware that the government wants you to include ICT in your teaching and learning?

Yes ___
No ___

Questionnaire

Which of the following do you need most help with?

Factors	Response
Access to computers	
Up-to-date equipment	
ICT related training	
Technical support	
Practical help with using ICT in my teaching	

Do you feel that your students know more about technology than you do?

Yes ___
No ___

Please select those that would help you MOST to take up ICT in your teaching. Please Tick all you feel most appropriate for you.

Factors	Response
More access to computers	
Be able to discuss ICT use with others	
Received more training	
Had more technical support	
Be more confident about the technology	
Have various user guides to help me	
Know the relevance of what I could use it for	
See others like me using it	
More time to learn	
Receive management support in ICT	
Given incentives to learn	
Help to prepare ICT related materials for teaching	

What would you like to see changed with regard to your ICT training needs?

Factors	Response
More **time** to learn and absorb ICT	
Personal ICT training schedule	
Follow up session from Staff Development training	
Feedback on my **progress** after ICT training	
Option to receive **external** ICT related training	
ICT training more **relevant** to my teaching area	

APPENDIX G

Research Introductory Letter

Dear Colleague

I am an IT lecturer and Curriculum Team Leader for Information Communications Technology at South Thames College. Currently, I am a Doctorate student at the Institute of Education, where I am doing research for my thesis based on the *barriers and challenges that non-ICT lecturers face when integrating ICT into their teaching and learning environment in Further Education.*

As part of my research, I am interested in FE lecturers' views and experience in the integration and use of ICT. I am seeking to understand your perceptions on access to computer equipment, use of e-mail and Internet facilities, using computers for administrative tasks such as for course preparation and delivery. I am also interested in staff development issues relating to your ICT training needs. I would also like to explore your confidence and motivation to undertake the integration of ICT in your job role and ICT training at your college. Finally, I would like to find out how your current ICT training needs are identified and addressed in your staff development sessions.

Your views will make a valuable contribution to this important research. Please note that your name is not required in the interview or on the questionnaire to be completed. All responses will be treated in the strictest confidence and all information provided will only be seen by myself. Your names will omitted and will not be used in the thesis. After the interview I would be most grateful if you would be kind enough as to post the completed questionnaire to the address below or phone me and I will be happy to pick it up. I enclose a stamped addressed envelope your convenience.

Being an FE lecturer I understand this questionnaire may present an additional task on your already heavy workload, but I would be most grateful if you could help a fellow FE colleague with this important endeavour.

Should you require any further information please do not hesitate to contact me on the following telephone number 07595 245897 or via e-mail: mshamsudoha786@yahoo.co.uk.

Yours faithfully,

Mohammed Shamsudoha

Mohammed Shamsudoha

Mohammed Shamsudoha
South Thames College,
ICT Curriculum Team Leader
School of Business Studies
Putney Hill, Putney SW15

Thank you for your support

APPENDIX H

Barriers identified in the three colleges

Barrier No.	List of barriers	College
1	The **time factor is a serious barrier** for teachers. Given their many responsibilities outside of teaching, teachers have very little time for participation in professional development.	A, B, C
2	**No incentives** for teachers to learn and use ICT.	A, B, C
3	Staff development **training is not at the level required** by non-ICT teachers.	A, B, C
4	**Lack of attention** given to non-ICT **teachers training needs**	A, B, C
5	**Lack of ICT and training**-related resources available to non-ICT teachers	A, C
6	**Lack of direction,** guidelines to user manuals for non-ICT teachers	A, B, C
7	Some teachers resist engaging in staff development due to **poorly planned ICT training sessions.**	A, C
8	Teachers **not allowed to attend externally organised course** – costly for college	A, C
9	**Lack of communications** between teachers and managers	A, C
10	**Lack of attention to strategies** in monitoring and follow ups.	A, B, C
11	The **lack of effective technical support** and trouble shooting when a teacher experiences difficulty in classrooms	A, B, C
12	**Shortage of Technical Support Staff**	A, B, C
13	**Shortage of ILT Champions**	A, B, C
14	**Outdated equipment** – slow, network breakdown, viruses, keeping up with latest technology.	A, B, C
15	**Lack of management support** in addressing non-ICT teachers' needs and to staff development.	A, C
16	**Lack of funds** for Staff Development Officers to offer training	A, C
17	**Poor communications** between SDOs, TSS, Management staff and the non-ICT teachers needs to be more direct.	A, C
18	**Vision of ICT usage is not shared** with teaching staff but expected.	A, B, C
19	**Lack of opportunity to learn** through exchange of experience.	A, B, C
20	**Insufficient feedback** to and from non-ICT teachers.	A, B, C
21	**Cover not available** for non-ICT teachers to attend external courses.	A, B, C

Barriers identified in the three colleges